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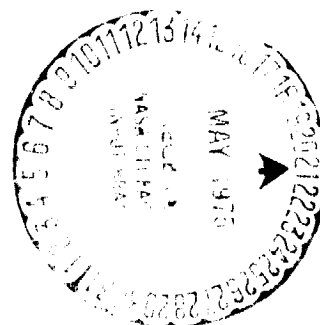
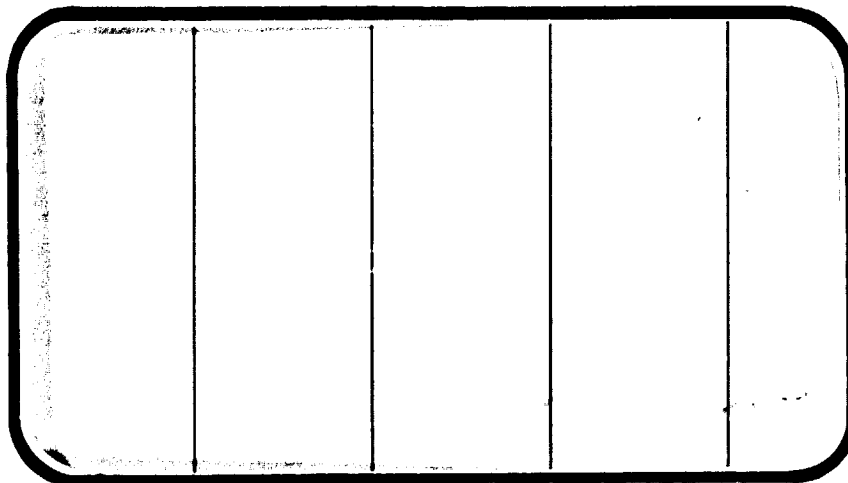
(NASA-CR-141531) RESULTS OF INVESTIGATIONS  
WITH AN 0.015-SCALE MODEL (49-0) OF THE  
ROCKWELL INTERNATIONAL SPACE SHUTTLE VEHICLE  
140A/B CONFIGURATION WITH MODIFIED OMS PODS  
AND ELEVONS IN THE AEDC VKI TUNNEL B (0A79)

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**SPACE SHUTTLE**

**AEROTHERMODYNAMIC DATA REPORT**

**JOHNSON SPACE CENTER**

**HOUSTON, TEXAS**

**DATA Management services**

**SPACE DIVISION**



**CHRYSLER  
CORPORATION**

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RESULTS OF INVESTIGATIONS WITH AN 0.015-SCALE  
MODEL (49-0) OF THE ROCKWELL INTERNATIONAL  
SPACE SHUTTLE VEHICLE 140A/B CONFIGURATION WITH  
MODIFIED OMS PODS AND ELEVONS IN THE  
AEDC VKF TUNNEL B (0A79)

By

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Prepared under NASA Contract Number NAS9-13247

By

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New Orleans, La. 70189

for

Engineering Analysis Division  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas



WIND TUNNEL TEST SPECIFICS:

Test Number: AEDC V41B-71A  
NASA Series Number: OA79  
Model Number: 49-0  
Test Dates: 1 August through 3 August, 1974  
Occupancy Hours: 24

FACILITY COORDINATOR:

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ABSTRACT

This report documents aerodynamic data obtained from wind tunnel tests of an 0.015-scale SSV Orbiter model of a 140A/B configuration with modified OMS pods and elevons. This test was conducted at Mach 8 in the B tunnel of the Von Karman Gas Dynamics Facility.

Force data was obtained at various control surface settings and Reynolds numbers in the angle of attack range of  $15^\circ$  to  $45^\circ$  and at angles of sideslip of  $-5^\circ$  to  $+5^\circ$ . Control surface variables included elevon, rudder, speed brake and body flap configurations. This test was conducted during the period August 1, 1974 through August 3, 1974.

## TABLE OF CONTENTS

	Page
ABSTRACT	iii
INDEX OF MODEL FIGURES	2
INDEX OF DATA FIGURES	3
NOMENCLATURE	6
CONFIGURATIONS INVESTIGATED	10
INSTRUMENTATION	12
TEST FACILITY DESCRIPTION	13
DATA REDUCTION	14
TABLES	
I. TEST CONDITIONS	16
II. DATA SET/RUN NUMBER COLLATION SUMMARY	17
III. MODEL DIMENSIONAL DATA	22
FIGURES	
MODEL	33
DATA	39
APPENDIX	
TABULATED SOURCE DATA	

## INDEX OF MODEL FIGURES

Figures	Title	Page
1.	Axis systems.	33
2.	Model sketches.	
	a. SSV Orbiter Configuration 140A/B-Modified	34
	b. Model Configuration	35
	c. Base and Cavity Pressure Locations	36
3.	Model photographs.	
	a. View Looking Aft With Model Rolled	37
	b. Side View of Model for a Beta Sweep	38

# INDEX OF DATA FIGURES

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED	CONDITIONS VARYING	PAGES
Fig. 4	EFFECT OF OMS PODS	(A)	CONFIGURATION	1-14
Fig. 5	EFFECT OF SEALING ELEVON GAP	(A)	EL-GAP	15-28
Fig. 6	FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)	(A)	ELV-LO, ELV-LI, ELV-RI, ELV-RO	29-42
Fig. 7	FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)	(A)	ELV-LO, ELV-LI, ELV-RO, ELV-RI	43-56
Fig. 8	INCREMENTAL EFFECTS OF ELEVON DEFLECTION	(B)	ALPHA, DLTIELV	57-80
Fig. 9	FULL SPAN AILERON EFFECTIVENESS	(A)	ELV-LO, ELV-LI, ELV-RO, ELV-RI	81-94
Fig. 10	INCREMENTAL EFFECTS OF AILERON DEFLECTION	(C)	ALPHA, DLTARN	95-127
Fig. 11	INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED	(A)	ELV-LI, ELV-RI	128-141
Fig. 12	INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS	(D)	ALPHA, DLE-LI	142-165
Fig. 13	OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED	(A)	ELV-LO, ELV-RO	166-179
Fig. 14	INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS	(E)	ALPHA, DLE-LO	180-203
Fig. 15	BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)	(A)	BDFLAP	204-217

# INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED	CONDITIONS VARYING	PAGES
Fig. 16	INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 3.53)	(F)	ALPHA, DLBDFP	218-241
Fig. 17	BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)	(A)	BDFLAP	242-255
Fig. 18	INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 1.86)	(F)	ALPHA, DLBDFP	256-279
Fig. 19	BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)	(A)	BDFLAP	280-293
Fig. 20	INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 0.50)	(F)	ALPHA, DLBDFP	294-317
Fig. 21	REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)	(A)	RN/L	318-331
Fig. 22	REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)	(A)	RN/L	332-345
Fig. 23	REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = -11.7)	(A)	RN/L	346-359
Fig. 24	REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 0)	(A)	RN/L	360-373
Fig. 25	REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 0)	(A)	RN/L	374-387
Fig. 26	REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)	(A)	RN/L	388-401

# INDEX OF DATA FIGURES (Concluded)

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED	CONDITIONS VARYING	PAGES
Fig. 27	REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)	(A)	RN/L	402-415
Fig. 28	REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)	(A)	RN/L	416-429

## SCHEDULE OF COEFFICIENTS PLOTTED:

- (A) CN, CLMFWD, CLMAFT, XCP/L, CA, CAF, CAB, CY, CL, CD, L/D versus ALPHA  
CN versus CLMFWD, CN versus CLMAFT, CL versus CD
- (B) DLICN, DLICMF, DLICMA, DLICA, DLICAF, DLTCAB, DLICL, DLICD versus DLIELV
- (C) DLICN, DLICMF, DLICMA, DLICA, DLICAF, DLTCAB, DLICL, DLICD, DLICY, DLICYN  
DLICBL versus DLICRN
- (D) DLICN, DLICMF, DLICMA, DLICA, DLICAF, DLTCAB, DLICL, DLICD versus DLE-LI
- (E) DLICN, DLICMF, DLICMA, DLICA, DLICAF, DLTCAB, DLICL, DLICD versus DLE-LO
- (F) DLICN, DLICMF, DLICMA, DLICA, DLICAF, DLTCAB, DLICL, DLICD versus DLBDFF

# NOMENCLATURE General

<u>SYMBOL</u>	<u>Plot SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C <sub>p</sub>	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; $V/a$
P		pressure; N/m <sup>2</sup> , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$ , N/m <sup>2</sup> , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
$\alpha$	ALPHA	angle of attack, degrees
$\beta$	BETA	angle of sideslip, degrees
$\psi$	PSI	angle of yaw, degrees
$\phi$	PHI	angle of roll, degrees
$\rho$		mass density; kg/m <sup>3</sup> , slugs/ft <sup>3</sup>

## Reference & C.G. Definitions

A <sub>b</sub>		base area; m <sup>2</sup> , ft <sup>2</sup>
b	BREF	wing span or reference span; m, ft
C.G.		center of gravity
$\frac{l}{c}$ <sub>REF</sub>	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m <sup>2</sup> , ft <sup>2</sup>
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

## SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
$\infty$	free stream



# NOMENCLATURE (Continued)

## Body-Axis System

<u>SYMBOL</u>	<u>Plot SYMBOL</u>	<u>DEFINITION</u>
$C_N$	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
$C_A$	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_{A_b}$	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(P_b - P_o)/qS$
$C_{A_f}$	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
$C_n$	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

## Stability-Axis System

$C_L$	CL	lift coefficient; $\frac{\text{lift}}{qS}$
$C_D$	CD	drag coefficient; $\frac{\text{drag}}{qS}$
$C_{D_b}$	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
$C_{D_f}$	CDF	forebody drag coefficient; $C_D - C_{D_b}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
$C_n$	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
$C_l$	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio: $C_L/C_D$
L/D <sub>f</sub>	L/DF	lift to forebody drag ratio: $C_L/C_{D_f}$

NOMENCLATURE (Continued)  
Additions To Nomenclature

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
$\delta_{e_{LO}}$	ELE-LO	left outboard elevon surface deflection angle, positive deflection trailing edge down; degrees
$\delta_{e_{LI}}$	ELE-LI	left inboard elevon surface deflection angle, positive deflection trailing edge down; degrees
$\delta_{e_{RO}}$	ELE-RO	right outboard elevon surface deflection angle, positive deflection trailing edge down; degrees
$\delta_{e_{RI}}$	ELE-RI	right inboard elevon surface deflection angle, positive deflection trailing edge down; degrees.
$\delta_{SB}$	SPDBRK	speed brake deflection angle (parallel to freestream), degrees
$\delta_R$	RUDDER	rudder deflection angle, degrees
$\delta_{BF}$	BDFLAP	body flap deflection angle, degrees
$X_{cp}/l_{ref}$	XCP/L	normal force center of pressure, percent reference length
$C_{mFWD}$	CLMFWD	pitching moment coefficient at .65 body length (forward C.G.)
$C_{mAFT}$	CLMAFT	pitching moment coefficient at .675 body length (aft C.G.)
$\Delta\delta_e$	DLTELV	incremental full span elevon deflection angle, degrees
$\Delta C_N$	DLTCN	incremental normal force coefficient
$\Delta C_{mFWD}$	DLTCMF	incremental pitching moment coefficient (fwd. C.G.)
$\Delta C_{mAFT}$	DLTCMA	incremental pitching moment coefficient (aft C.G.)
$\Delta C_A$	DLTCA	incremental axial force coefficient

NOMENCLATURE (Concluded)  
Additions to Nomenclature

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
$\Delta C_{AF}$	DLTCAF	incremental forebody axial force coefficient
$\Delta C_{AB}$	DLTCAB	incremental base axial force coefficient
$\Delta C_L$	DLTCL	incremental lift coefficient
$\Delta C_D$	DLTCD	incremental drag coefficient
$\Delta C_Y$	DLTCY	incremental side force coefficient
$\Delta C_N$	DLTCYN	incremental yawing moment coefficient
$\Delta C_L$	DLTCBL	incremental rolling moment coefficient
$\Delta \delta_{e_i}$	DLE-LI	incremental inboard elevon deflection angle, degrees
$\Delta \delta_{BF}$	DLBDFP	incremental body flap deflection angle, degrees
$\Delta \delta_{e_o}$	DLE-LO	incremental outboard elevon deflection angle, degrees
$\Delta \delta_a$	DLTARN	incremental aileron deflection angle, degrees

## CONFIGURATIONS INVESTIGATED

Effects of OMS pod configurations and elevon gap (between inboard and outboard panels) were investigated. The model was tested with OMS pods off, with the baseline OMS pods, and new OMS pods. Tests were conducted with both a 6-inch (full scale) elevon gap and with a sealed elevon gap.

$$O_1 = B_{26} C_9 E_{43} F_8 M_{16} N_{28} R_5 V_8 W_{116}$$

$$O_2 = B_{26} C_9 E_{43} F_8 N_{28} R_5 V_8 W_{116}$$

$$O_3 = B_{26} C_9 E_{43} F_8 M_7 N_{28} R_5 V_8 W_{116}$$

<u>Component</u>	<u>Definition</u>
B <sub>26</sub>	fuselage per Rockwell lines VL70-000143B, -000200, -000205, -006089, -000145, -000140A and -000140B (model drawing SS-A00147)
C <sub>9</sub>	canopy per Rockwell lines VL70-000143B (model drawing SS-A00147)
E <sub>43</sub>	slotted version (6-inch) of E <sub>26</sub> elevons per Rockwell lines VL70-000200, -006089, -006092 (model drawing SS-A00148)
F <sub>8</sub>	body flap per Rockwell lines VL70-000140A, 000145 (model drawing SS-A00147)
M <sub>7</sub>	OMS/RCS pods per Rockwell lines VL70-000140A, -000145 (model drawing SS-A00147)
M <sub>16</sub>	OMS/RCS pods per Rockwell lines VL70-008410, -000140C (model drawing SS-A00147)
N <sub>28</sub>	OMS engine nozzle per Rockwell lines VL70-000140A (model drawing SS-A00147)

# CONFIGURATIONS INVESTIGATED (Concluded)

<u>Component</u>	<u>Definition</u>
R <sub>5</sub>	rudder per Rockwell lines VL70-000146A, -000095, -000139 (model drawing SS-A00148)
V <sub>8</sub>	vertical tail per Rockwell lines VL70-000146A (model drawing SS-A00148)
W <sub>116</sub>	wing per Rockwell lines VL70-000140B, -000200 (model drawing SS-A00148)

## INSTRUMENTATION

Force instrumentation consisted of a six component internal force balance mounted in the Orbiter sting cavity.

Pressure instrumentation consisted of a base pressure rake and one sting cavity pressure which were routed along the sting to externally mounted transducers for pressure measurement.

Three thermocouples were mounted in the Orbiter. The first thermocouple was located in the lower wing at outer mold line  $X_0 = 17.83$  inch m.s.,  $Y_0 = 4.215$  inch m.s.; the second at the lower fuselage centerline at outer mold line  $X_0 = 17.83$  inch m.s.,  $Y_0 = 0.000$  inch m.s. and the third thermocouple at the lower fuselage centerline at outer mold line  $X_0 = 6.00$  inch m.s.,  $Y_0 = 0.00$  inch m.s.

These thermocouples were used to monitor the surface temperature on the model.

## TEST FACILITY DESCRIPTION

The Arnold Engineering Development Center (AEDC) is an Air Force Facility located in Tullahoma, Tennessee. Tunnel B is a continuous, closed circuit, variable density wind tunnel with an axisymmetric contoured nozzle and a 50-inch diameter test section. The tunnel can be operated at a nominal Mach number of 6 or 8 at stagnation pressures from 20 to 300 and 50 to 900 psia, respectively, and at a stagnation temperature of up to 1350°R. The model may be injected into the tunnel for a test run and then retracted for model cooling or model changes without interrupting the tunnel flow.

## DATA REDUCTION

The aerodynamic forces and moments recorded by the internal strain gage balance were reduced to coefficient form in the body and stability axis systems utilizing the following reference dimensions:

<u>Symbol</u>		<u>Model Scale</u>	<u>Full Scale</u>
$A_B$	Total base area excluding sting cavity, ft <sup>2</sup>	0.06080	270.2
$A_{SC}$	sting cavity area, ft <sup>2</sup>	0.03409	151.5
$S$	wing planform area, ft <sup>2</sup>	0.60525	2690.0
$l_b$	body reference length, in	19.3545	1290.3
$\bar{c}(l_{ref})$	wing M.A.C., in	7.1222	474.81
$b_{ref}$	wing span, in	14.0502	936.68

Moments are referenced about model station 16.150 (fuselage station 1076.68) on the fuselage at model water line 5.625 (full scale water line 375)

Model base and cavity pressures were measured during the test and have been used to correct the data for model base effects. Location and areas for these pressures were as shown in figure 2b.

Axial force coefficients were determined as follows:

$$C_A = C_{AU} - C_{ASC}$$

$$C_{AF} = C_{AU} - C_{AB}$$



# DATA REDUCTION (Concluded)

where:

- $C_{AU}$  = axial force coefficient unadjusted for base or sting cavity pressures
- $C_{ASC}$  = sting cavity axial force coefficient
- $C_{AB}$  = base axial force coefficient

TABLE I.

[illegible]

TABLE II.

TEST: OA79

DATA SET RUN NUMBER COLLATION SUMMARY

DATE: 8-13-74

[illegible]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	52
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$$A: 5^{\circ} + 5^{\circ} \rightarrow 5^{\circ}$$

BB: -5 → -5 as ultimate

2007-06-15

$$32: 10/11 = 9-10 \times 11/101$$

83.  $P_{0.1} = 0.50$

TABLE II. - Continued.

[illegible]

Report of 127 Instrumentation	Problems (No Data)
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POOR QUALITY

TABLE II. - Continued.

TEST: 0479		DATA SET RUN NUMBER COLLATION SUMMARY										DATE: 8-13-74				
DATA SET IDENTIFIER	CONFIGURATION	SCHD.	PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS		
			8	9	10	11	12	13	14	15	16	17		8	9	10
RTN 037	See Envt for M <sub>0</sub> N <sub>0</sub> B <sub>0</sub> W <sub>0</sub>	A	0	0	-10	-10	-20	0	55	0	3.53			145		
038		A	0	-20	0	0	-20	0	55	0				146		
039		O	B	-20	0	0	-20	0	55	0				147	(HEAT SENS)	
040		A	0	0	0	0	0	0	55	0	1.86			148		
041		A	0	0	0	0	0	0	55	0				149	(Tech 13-04)	
042		A	0	-20	-20	-20	-20	0	55	0	3.53			157	(SEALED 6 GAP)	
043		A	0	0	0	0	0	0	55	0				158		
044		A	0	0	0	0	0	0	25	0				159		
045		A	0	0	0	0	0	0	85	0				160		
046		A	0	-30	-30	-30	-30	0	55	0				161		
047		A	0	-10	+10	-10	+10	+16.3	55	0				162		
048		A	0	0	0	0	0	-17	55	0	1.86			150		
049		A	0	0	0	0	0	+16.3	55	0				151		
050		A	0	+10	+10	-10	+10	-16.3	55	0				152		
051		A	0	+10	+10	+10	+10	0	55	0				153		
052		A	0	+20	+20	+20	+20	0	55	0				154		
053		A	0	+20	+20	+20	+20	+16.3	55	0				155		
RTN 054	See Envt for M <sub>0</sub> N <sub>0</sub> B <sub>0</sub> W <sub>0</sub>	A	0	-40	-40	-40	-40	0	55	0				156		
TEST RUN NUMBERS																
			19	25	31	37	43	49	55	61	67	73				
CA			CAE	CLME	GY	GN	GBL	CAB	XCP	LCLF	ISDF	MASH	ALPHA			
			DEFINITIONS													
			CLEAR 1 CLEAR 2													

TABLE II. - Continued.

TEST: 0A79

DATE: 8-13-74

DATA SET RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCMD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS		
		A	B	S <sub>10</sub>	S <sub>11</sub>	S <sub>12</sub>	S <sub>13</sub>	S <sub>14</sub>	S <sub>15</sub>	S <sub>16</sub>	S <sub>17</sub>	S <sub>18</sub>	R/Lt		8'	8 <sup>2</sup>	8 <sup>3</sup>
				+10	+10	+10	+10	+10	+10	+10	+10	+10					
RTW055	B <sub>10</sub> C <sub>10</sub> F <sub>10</sub> G <sub>10</sub> H <sub>10</sub> I <sub>10</sub> J <sub>10</sub> K <sub>10</sub> L <sub>10</sub> M <sub>10</sub> N <sub>10</sub> O <sub>10</sub> P <sub>10</sub> Q <sub>10</sub> R <sub>10</sub> S <sub>10</sub> T <sub>10</sub> U <sub>10</sub> V <sub>10</sub> W <sub>10</sub> X <sub>10</sub> Y <sub>10</sub> Z <sub>10</sub>	A	0	+10	+10	+10	+10	+10	+10	+10	+10	+10	0	0.50			
056		A	0	+10	+10	+10	+10	+10	+10	+10	+10	+10	0				163
057				0	0	0	0	0	0	0	0	0	0				164
058				0	0	0	0	0	0	0	0	0	0				165
059				0	0	0	0	0	0	0	0	0	0				166
060				+20	+20	+20	+20	+20	+20	+20	+20	+20	0				167
061				+20	+20	+20	+20	+20	+20	+20	+20	+20	0				168
062				-40	-40	-40	-40	-40	-40	-40	-40	-40	0				169
063				0	-40	-40	-40	-40	-40	-40	-40	-40	0	3.53			170
065				0	0	0	0	-20	0	55	0	55	0	3.53			171
066				0	0	-20	-10	0	55	0	55	0					172
067				-10	-20	-20	-30	0	55	0	55	0					173
068				-10	-10	-30	-30	0	55	0	55	0					174
069				+10	-10	-10	-10	0	55	0	55	0					175
070				-5	-5	+5	+5	0	55	0	55	0					176
071				0	0	0	0	0	0	25	0	25	0				177
RTW072				20	B	0	0	0	0	0	25	0					178
																	179

TEST RUN NUMBERS

171172173174175176177178179

163164165166167168169170

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157615771578157915801581158215831584158515861587158815891590159115921593159415951596159715981599

157615771578157915801581158215831584158515861587158815891590159115921593159415951596159715981599

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TABLE II. - Concluded.

[illegible]

TABLE III. - MODEL DIMENSIONAL DATA

MODEL COMPONENT: BODY - B<sub>26</sub>

GENERAL DESCRIPTION: Configuration 140A/B Orbiter Fuselage

NOTE: B<sub>26</sub> is identical to B<sub>24</sub> except underside of fuselage has been  
refaired to accept W<sub>116</sub>

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER: VL70-000143B, -000200, 000205, -006089, -000145,  
000140A, 000140B

DIMENSIONS:	FULL SCALE	MODEL SCALE
*Length (OML: Fwd Sta. X <sub>0</sub> =235)-In.	1293.3	19.400
*Length (IML: Fwd Sta. X <sub>0</sub> =238)-In.	1290.3	19.354
* Max Width (@ X = 1528.3) - In.	264.0	3.960
Max Depth (@ X <sub>0</sub> = 1464) - In.	250.0	3.750
Fineness Ratio		
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	340.88	0.077
Planform		
Wetted		
Base		



\*REVISED 4/24/74

TABLE III. - MODEL DIMENSIONAL DATA- Continued.

MODEL COMPONENT : CANOPY - C<sub>9</sub>

GENERAL DESCRIPTION : Configuration 3A, Canopy used with Buselage

B<sub>26</sub>

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER VL70-000143A

DIMENSIONS :	FULL SCALE	MODEL SCALE
* Length ( $X_0 = 434.643$ to $578$ )	<u>143.357</u>	<u>2.150</u>
Max Width (@ $X_0 = 513.127$ )	<u>152.412</u>	<u>2.286</u>
Max Depth (@ $X_0 = 485.0$ )	<u>25.000</u>	<u>0.375</u>
Fineness Ratio	<u>                    </u>	<u>                    </u>
Area	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>                    </u>	<u>                    </u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: SLOTTED ELEVON (6-INCH MAP) - E<sub>43</sub>

GENERAL DESCRIPTION: Configuration 140A/B Orbiter elevon.

NOTE: E<sub>43</sub> is a slotted version of E<sub>26</sub>. Data are for one side.

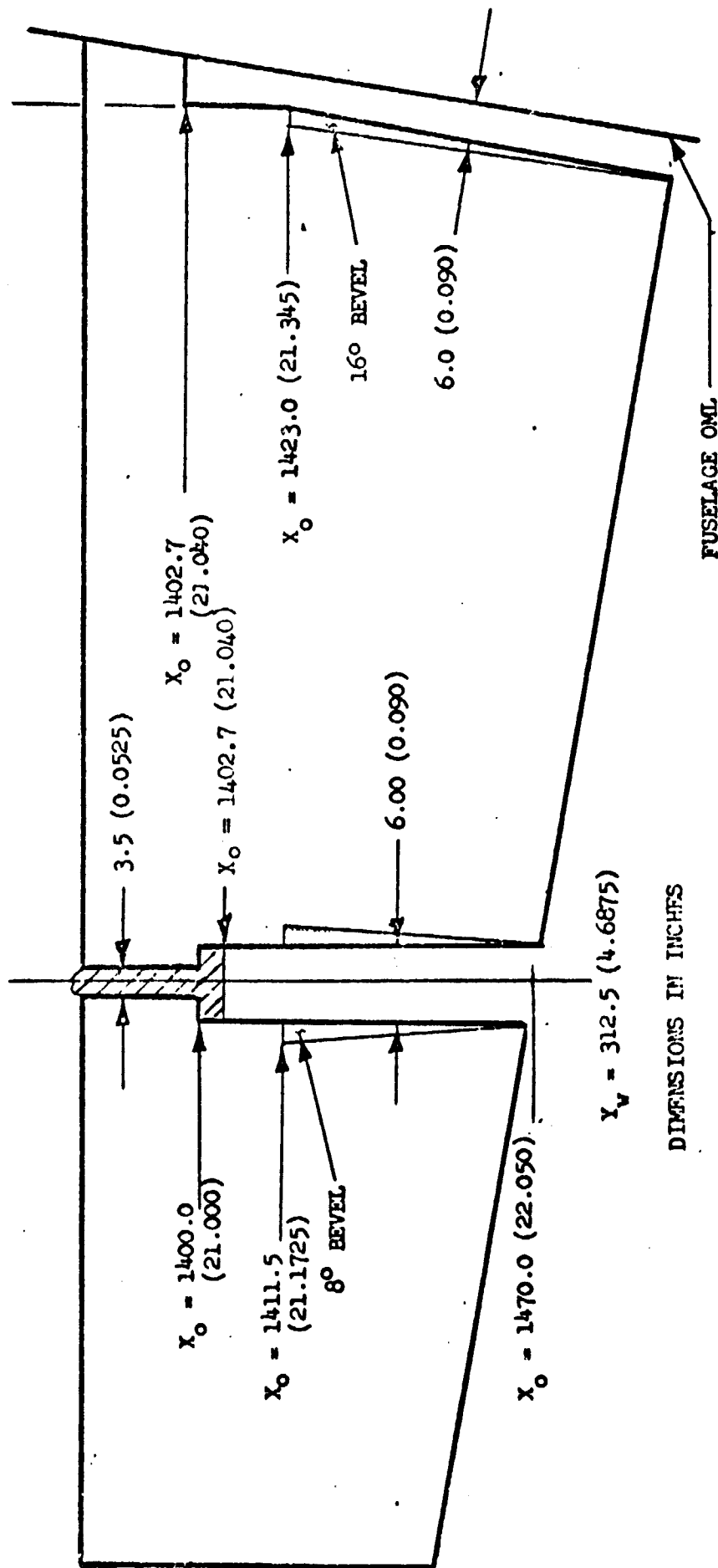
MODEL SCALE: 0.015

DRAWING NUMBER: VL70-000200, VL70-006089, VL006092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>210.0</u>	<u>0.0473</u>
Span (equivalent) - In.	<u>349.2</u>	<u>5.238</u>
Inb'd equivalent chord In.	<u>118.004</u>	<u>1.770</u>
Outb'd equivalent chord In.	<u>55.192</u>	<u>0.828</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Trailing Edge	<u>-10.056</u>	<u>-2.0456</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment ( Product of Area and $\bar{c}$ ) - Ft <sup>3</sup>	<u>1587.25</u>	<u>0.00536</u>
Mean Aerodynamic Chord ( $\bar{c}$ ), in.	<u>90.7</u>	<u>1.3605</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

$$Y_V = 128.50 \text{ (1.928)}$$



$$Y_V = 312.5 \text{ (4.6875)}$$

DIMENSIONS IN INCHES

Slotted Elevon -  $E_{43}$  (6-inch Cap)

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : BODY FLAP - F<sub>6</sub>

GENERAL DESCRIPTION : Configuration 140A/B Orbiter Body Flap.

Hingeline located at X<sub>0</sub> = 1528.3, Z<sub>0</sub> = 284.3

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER : VL7-000140A, VL70-000145

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (X <sub>0</sub> =1520 TO X <sub>0</sub> =1613) In.	<u>93.000</u>	<u>1.395</u>
Max Width (In.)	<u>262.00</u>	<u>3.930</u>
Max Depth (X <sub>0</sub> = 1520) - In.	<u>23.000</u>	<u>0.345</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area - Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>150.525</u>	<u>0.0339</u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>41.84722</u>	<u>0.00941</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: O/S Pod (M<sub>7</sub>)

GENERAL DESCRIPTION: Configuration 140 A/B Orbiter O/S-Pod

Model Scale = 0.015,

Model Drawing No. SS-A00147

DRAWING NUMBER

VL70-000140A

VL70-000145

DIMENSION:

FULL SCALE

MODEL SCALE

Length (O/S Fwd Sta  $X_0=1233.0$ ) - IN.

327.000

4.905

Max Width (@  $X_0=1450.0$ ) - IN.

94.5

1.418

Max Depth (@  $X_0=1493.0$ ) - IN.

109.000

1.635

Fineness Ratio

Area

Max Cross-Sectional

Planform

Wetted

Base

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TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: OMS Pod (146)

GENERAL DESCRIPTION: Configuration 1400 Orbiter OMS-Pod

Model Scale = 0.015.

Model Drawing No.

DRAWING NUMBER

V170-000140 C

V170-018410

DIMENSION:

FULL SCALE

MODEL SCALE

Length (OMS Fwd Sta  $X_0=1311.0$ )-In.

258.5

3.878

Max Width (@  $X_0 = 1511$  )-In.

136.8

2.052

Max Depth (@  $X_0 = 1511$  )-In.

74.7

1.121

Fineness Ratio

2.484

2.484

Area - FT<sup>2</sup>

Max Cross-Sectional

58.864

0.013

Planform

Wetted

Base

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TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: OMS NOZZLES - N28GENERAL DESCRIPTION: Configuration 140A/B Orbiter OMS NozzlesMODEL SCALE: 0.015 MODEL DRAWING: SS-A00106, RELEASE 5 (Contour)DRAWING NUMBER: VL70-000140A (Location)

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter - In.		
Exit		
Throat		
Inlet		
Area - ft <sup>2</sup>		
Exit		
Throat		
Gimbal Point (Station) - In.		
Left Nozzle		
X <sub>o</sub>	<u>1518.0</u>	<u>22.770</u>
Y <sub>o</sub>	<u>- 88.0</u>	<u>- 1.320</u>
Z <sub>o</sub>	<u>492.0</u>	<u>7.380</u>
Right Nozzle		
X <sub>o</sub>	<u>1518.0</u>	<u>22.770</u>
Y <sub>o</sub>	<u>+ 88.0</u>	<u>+ 1.320</u>
Z <sub>o</sub>	<u>492.0</u>	<u>7.380</u>
Null Position - Deg.		
Left Nozzle		
Pitch	<u>15°49'</u>	<u>15°49'</u>
Yaw	<u>12°17'</u>	<u>12°17'</u>
Right Nozzle		
Pitch	<u>15°49'</u>	<u>15°49'</u>
Yaw	<u>12°17'</u>	<u>12°17'</u>

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\*REVISED 4/24/74

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RUDDER - R<sub>5</sub>

GENERAL DESCRIPTION: 2A, 3, 3A and 140A/B Configurations

MODEL SCALE: 0.015

DRAWING NUMBER: VL70-000146A, VL70-000095, VL70-000139.

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
*Area- Ft <sup>2</sup>	<u>100.15</u>	<u>0.0225</u>
Span (equivalent) - In	<u>201.0</u>	<u>3.015</u>
Inb'd equivalent chord - In.	<u>91.585</u>	<u>1.3738</u>
Outb'd equivalent chord - In.	<u>50.833</u>	<u>0.7625</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.83</u>	<u>34.83</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
* Area Moment (Product of area & $\bar{c}$ )-Ft <sup>3</sup>	<u>610.92</u>	<u>0.002</u>
*Mean Aerodynamic Chord, In.	<u>73.2</u>	<u>1.098</u>

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\*REVISED 4/24/74

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V<sub>8</sub>

GENERAL DESCRIPTION: Configuration 140A/B Orbiter Vertical Tail

MODEL SCALE: 0.015

MODEL DRAWING: SS-A00148, RELEASE 6

DRAWING NUMBER: VL70-000146A

DIMENSIONS:

FULL SCALE      MODEL SCALE

TOTAL DATA

Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.253</u>	<u>0.093</u>
Span (Theo) - In.	<u>315.720</u>	<u>4.736</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
* Trailing Edge	<u>26.2</u>	<u>26.2</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.500</u>	<u>4.028</u>
Tip (Theo) WP	<u>108.470</u>	<u>1.627</u>
M.C	<u>199.808</u>	<u>2.997</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>21.953</u>
W.P. of .25 MAC	<u>635.522</u>	<u>9.533</u>
B.L. of .25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle - Deg.	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>2.00</u>	<u>0.030</u>
Void Area	<u>13.17</u>	<u>0.003</u>
Blanketed Area	<u>0.00</u>	<u>0.00</u>

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TABLE III. - MODEL DIMENSIONAL DATA - Concluded.

MODEL COMPONENT: WING-W<sub>116</sub>

GENERAL DESCRIPTION: Rockwell Mod L

NOTE: Identical to W<sub>116</sub> except airfoil thickness. Dihedral angle is along trailing edge of wing.

MODEL SCALE: 0.015

MODEL DRAWING: GE 100148 RELEASE 6

TEST NO.

DWG. NO. V570 000140B, -000200

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area (Theo.) Ft<sup>2</sup>

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

\*Fus. Sta. of .25 MAC

\* W.P. of .25 MAC

\* B.L. of .25 MAC

EXPOSED DATA

\* Area (Theo) Ft<sup>2</sup>

\* Span, (Theo) In. BP108

\* Aspect Ratio

Taper Ratio

Chords

\* Root BL108

Tip 1.00  $\frac{b}{2}$

\* MAC

\* Fus. Sta. of .25 MAC

\* W.P. of .25 MAC

\* B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)  
XXXX-64

Root  $\frac{b}{2}$  =

Tip  $\frac{b}{2}$  =

Data for (1) of (2) Sides

Leading Edge Cuff

\* Planform Area Ft<sup>2</sup>

\* Leading Edge Intersects Fus M. L. @ Sta

\* Leading Edge Intersects Wing @ Sta

# Notes

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

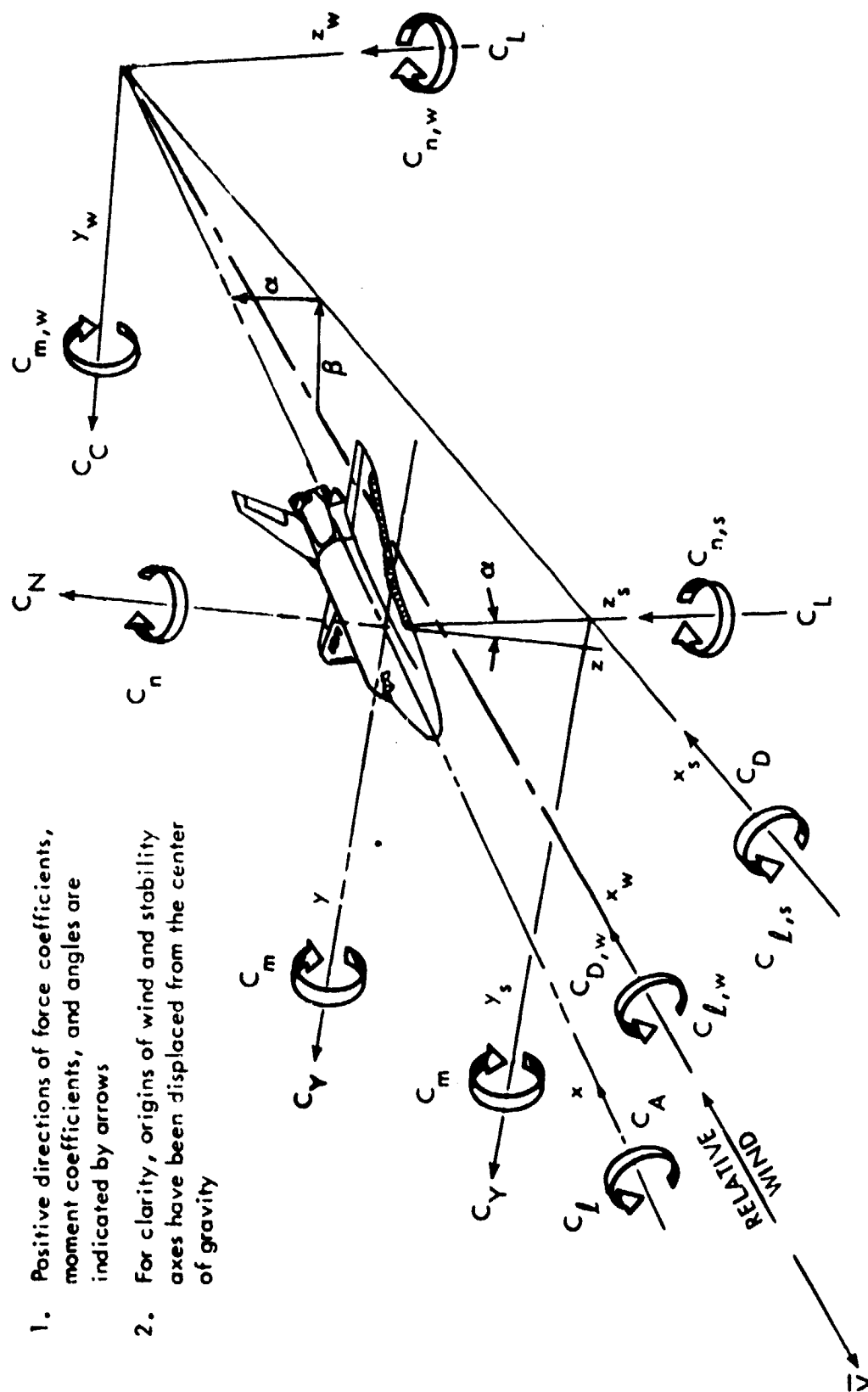
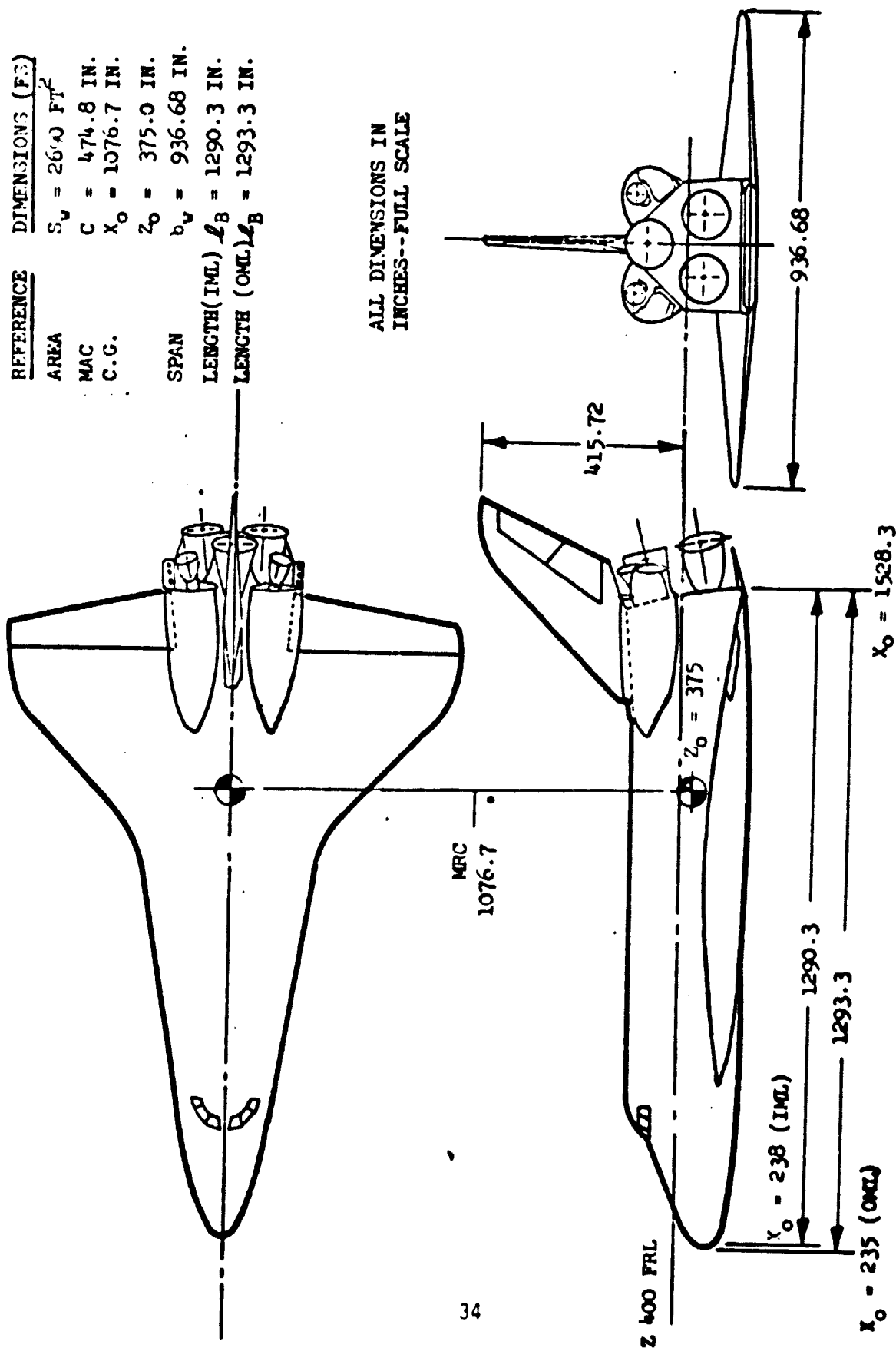
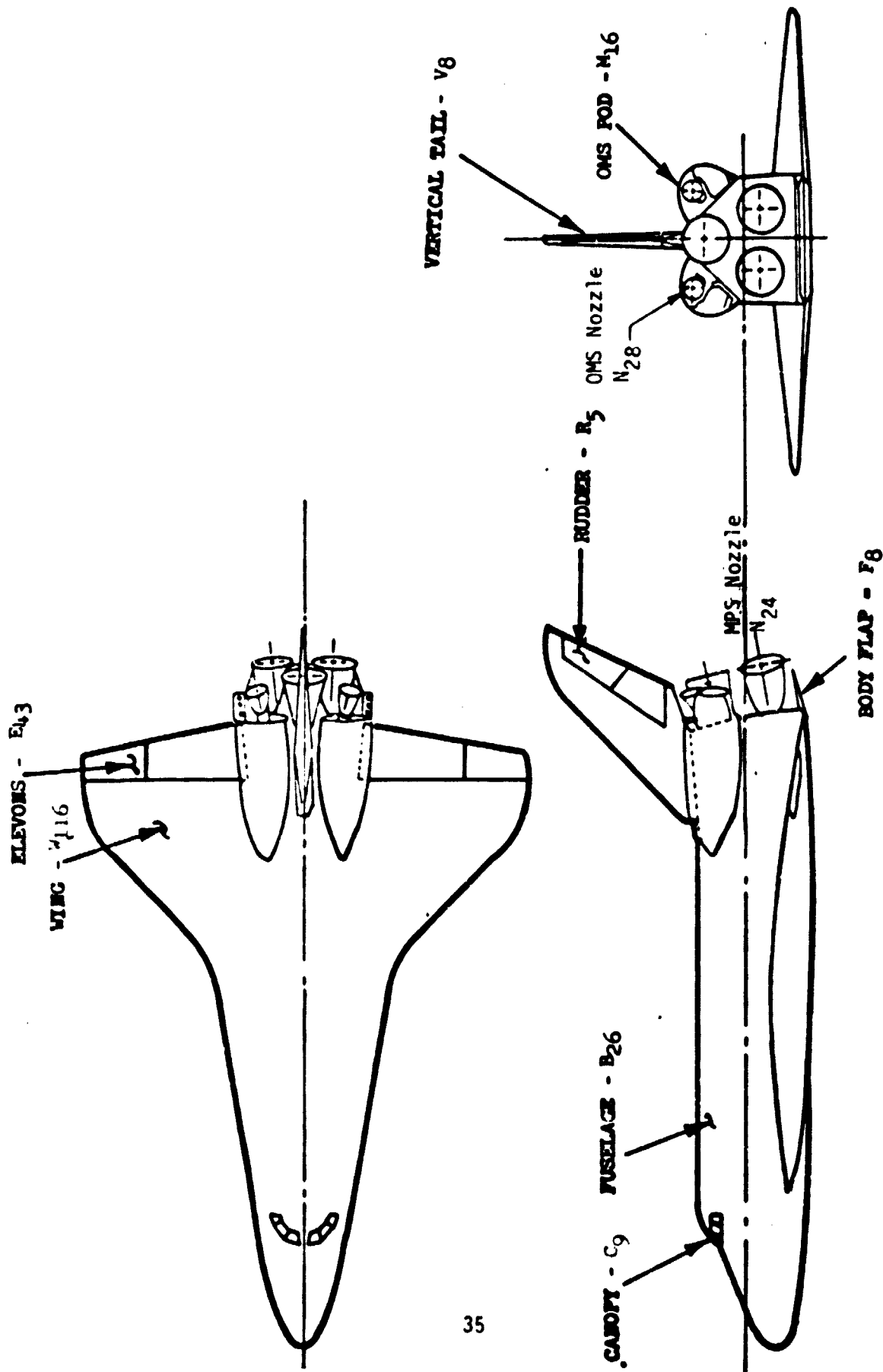


Figure 1. - Axis systems.



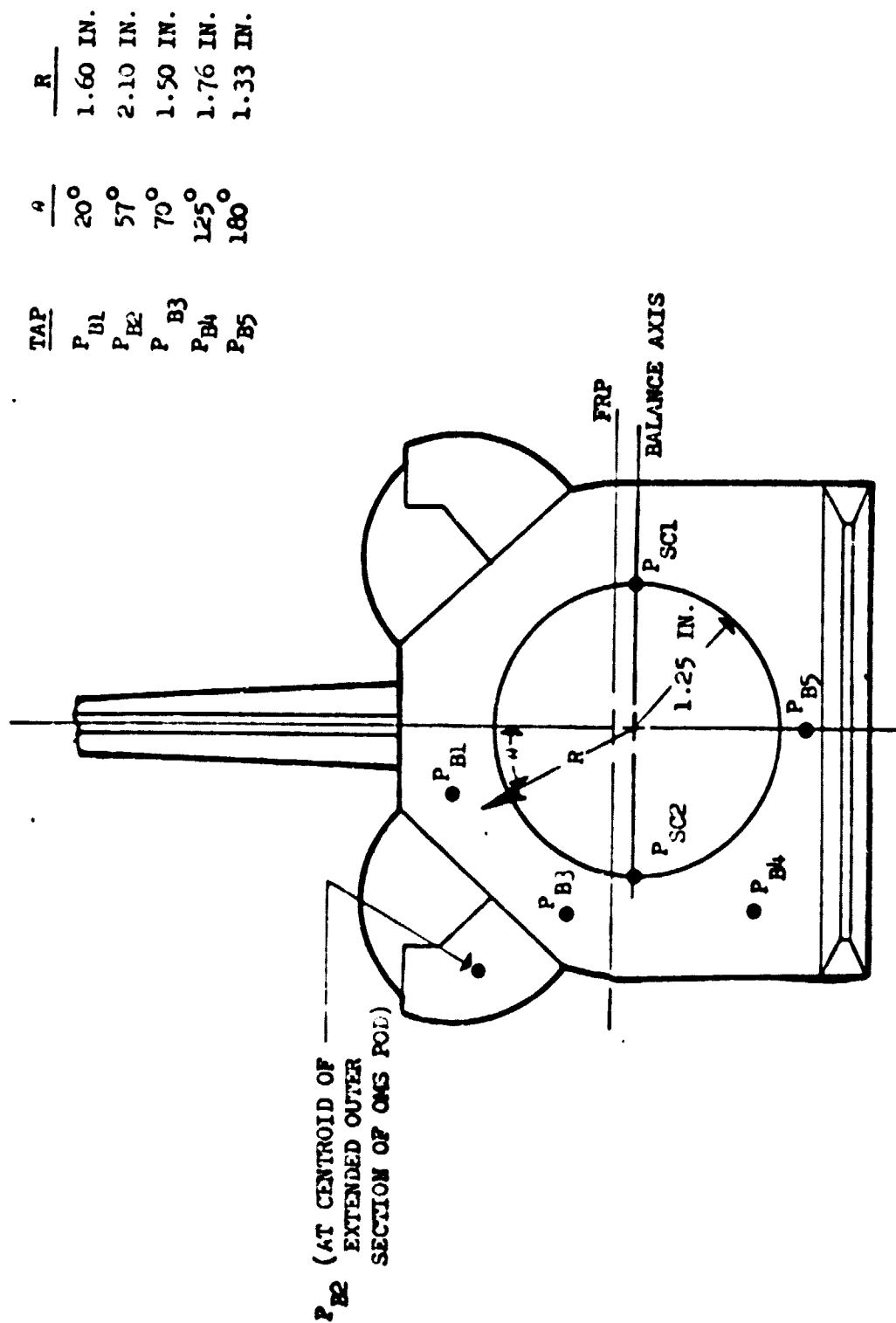
a. SSV Orbiter Configuration 140A/B-Modified

Figure 2. - Model sketches.



b. Model Configuration

Figure 2. - Continued.



c. Base and Cavity Pressure Locations

Figure 2. - Concluded.



a. View Looking Aft With Model Rolled  
Figure 3. - Model photographs.



b. Side View of Model for a Beta Sweep

Figure 3. - Concluded.



DATA FIGURES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CIV005)	0A79 826 C9 E43 F8 N28 R5 V8 V116	.000	.000	.000	.000	SREF 2690.0000 SQ.FT.
(CIV001)	0A79 826 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	LREF 474.8100 IN.
(CIV003)	0A79 826 C9 E43 F8 M7 N28 R5 V8 V116	.000	.000	.000	.000	BREF 936.6800 IN.
						XMRP 1076.6800 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.0000 IN. Z0
						SCALE .0150

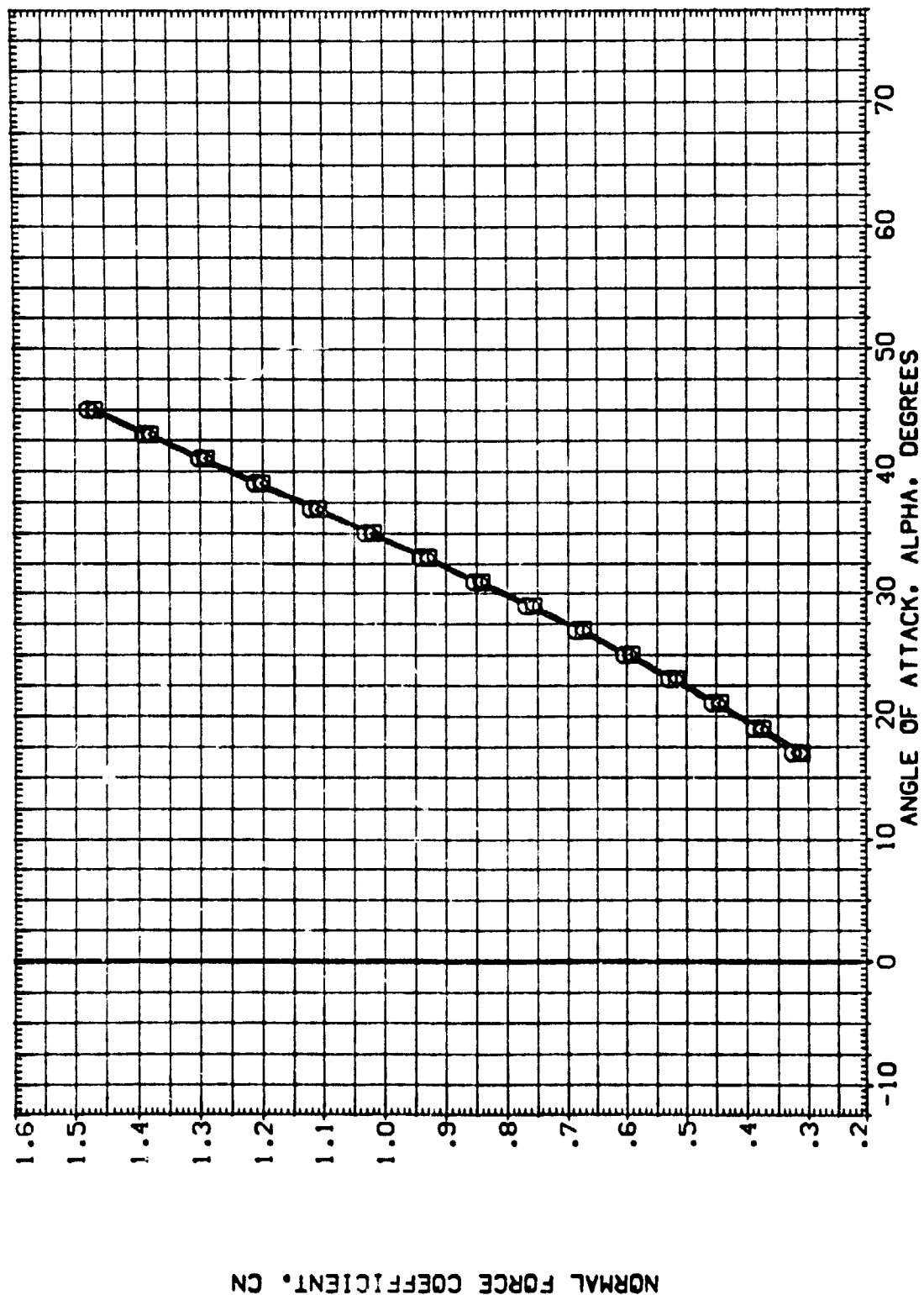


FIG. 4 EFFECT OF OMS PODS

(A)MACH = 8.00

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH(FORWARD C. G.) CLMFWO

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV006)	0A7C B26 C9 E43 F8 N28 R5 V8 VII6	.000	.000	.000	.000	SREF 2690.0000 SQ.FT.
(CTV001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 VII6	.000	.000	.000	.000	LREF 474.8100 IN.
(CTV008)	0A79 B26 C9 E43 F8 M7 N28 R5 V8 VII6	.000	.000	.000	.000	BREF 936.6800 IN.
						XREF 1076.6800 IN. X0
						YREF .0000 IN. Y0
						ZREF 375.0000 IN. Z0
						SCALE .0150

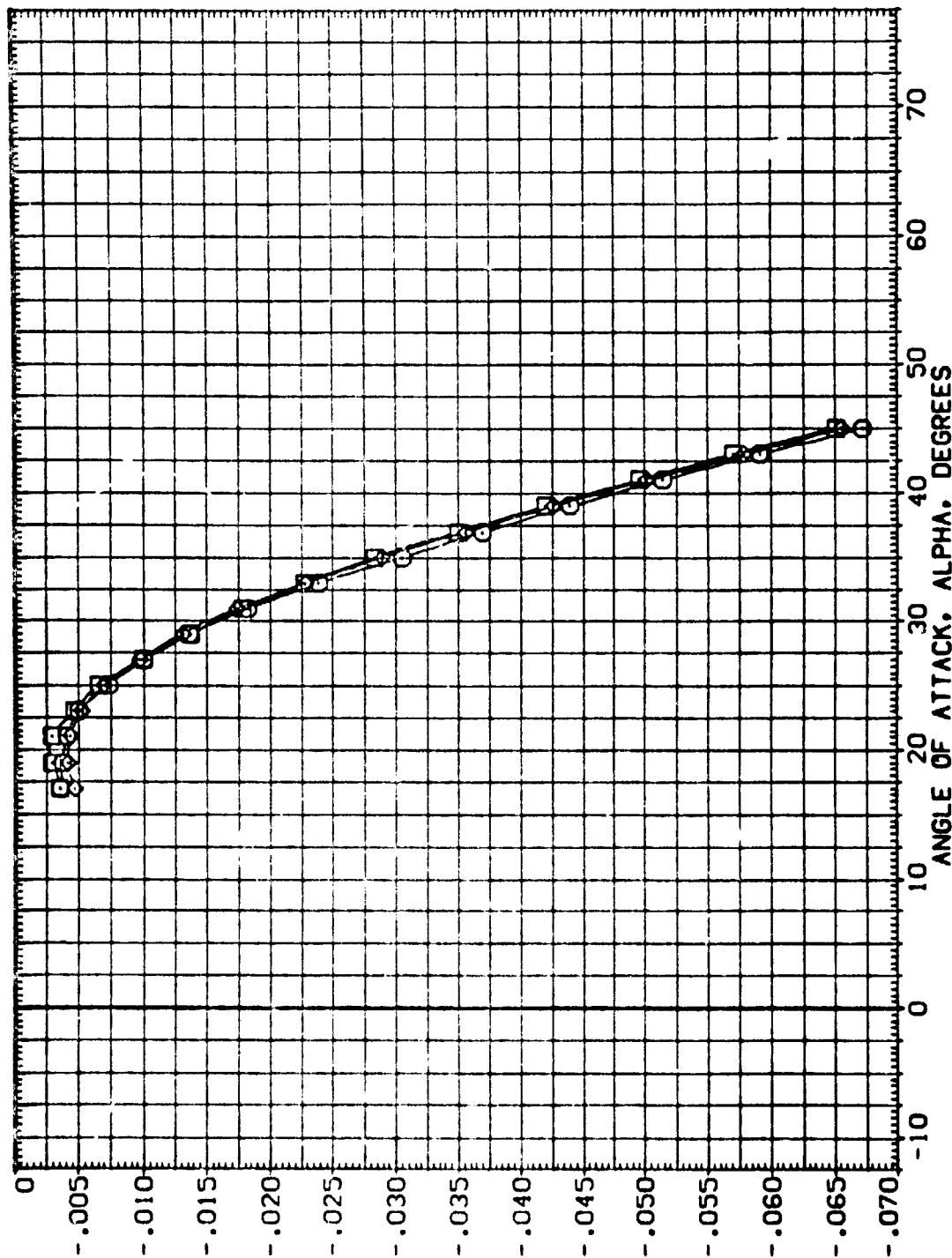


FIG. 4 EFFECT OF OMS PODS

(A)MACH = 8.00

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      REFERENCE INFORMATION

(CTV006)	0A79 826 C9 E43 F8 N28 R5 V8 V116	SREF	2650.0000	50.FT.
(CTV007)	0A79 826 C9 E43 F8 M16 N28 R5 V8 V116	LREF	474.8100	IN.
(CTV009)	0A79 826 C9 E43 F8 M7 N28 R5 V8 V116	BREF	936.6800	IN.
		XREF	1076.0000	IN. X0
		YREF	.0000	IN. Y0
		ZREF	375.0000	IN. Z0
		SCALE	.0150	

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH(AFT C. G.) CLMFT

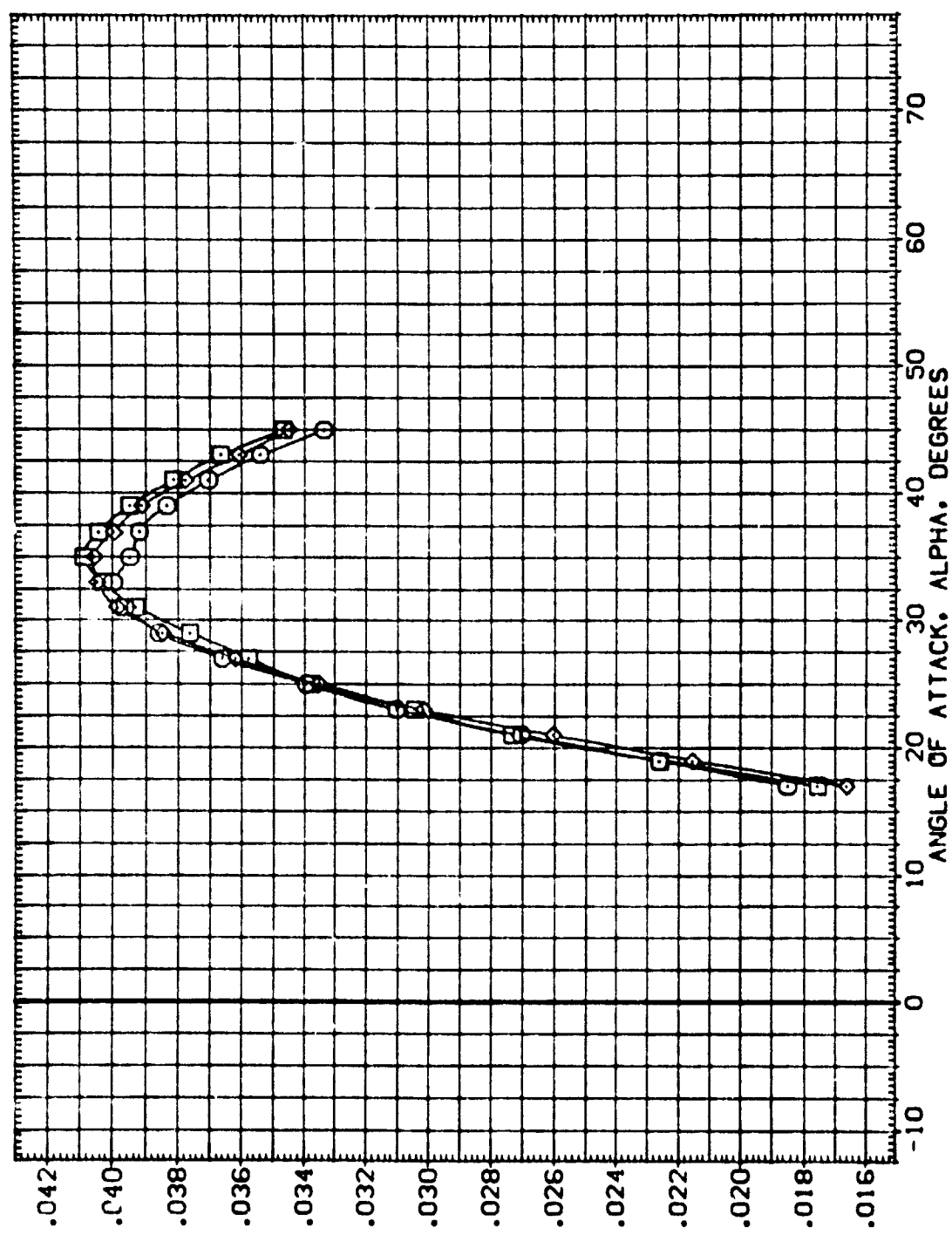


FIG. 4 EFFECT OF OMS PODS

(A)MACH = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CTV006)	Q473 B26 C9 E43 F8	N28 R5 V8 VII6
(CTV001)	Q479 B26 C9 E43 F8	M16 N28 R5 V8 VII6
(CTV009)	Q479 B26 C9 E43 F8	M7 N28 R5 V8 VII6

REFERENCE INFORMATION

SREF	2630.0000	SQ.FT.
LREF	474.8100	IN.
BREF	936.8800	IN.
XTRP	1076.6800	IN.X0
YTRP	.0000	IN.Y0
ZTRP	375.0000	IN.Z0
SCALE	.0150	

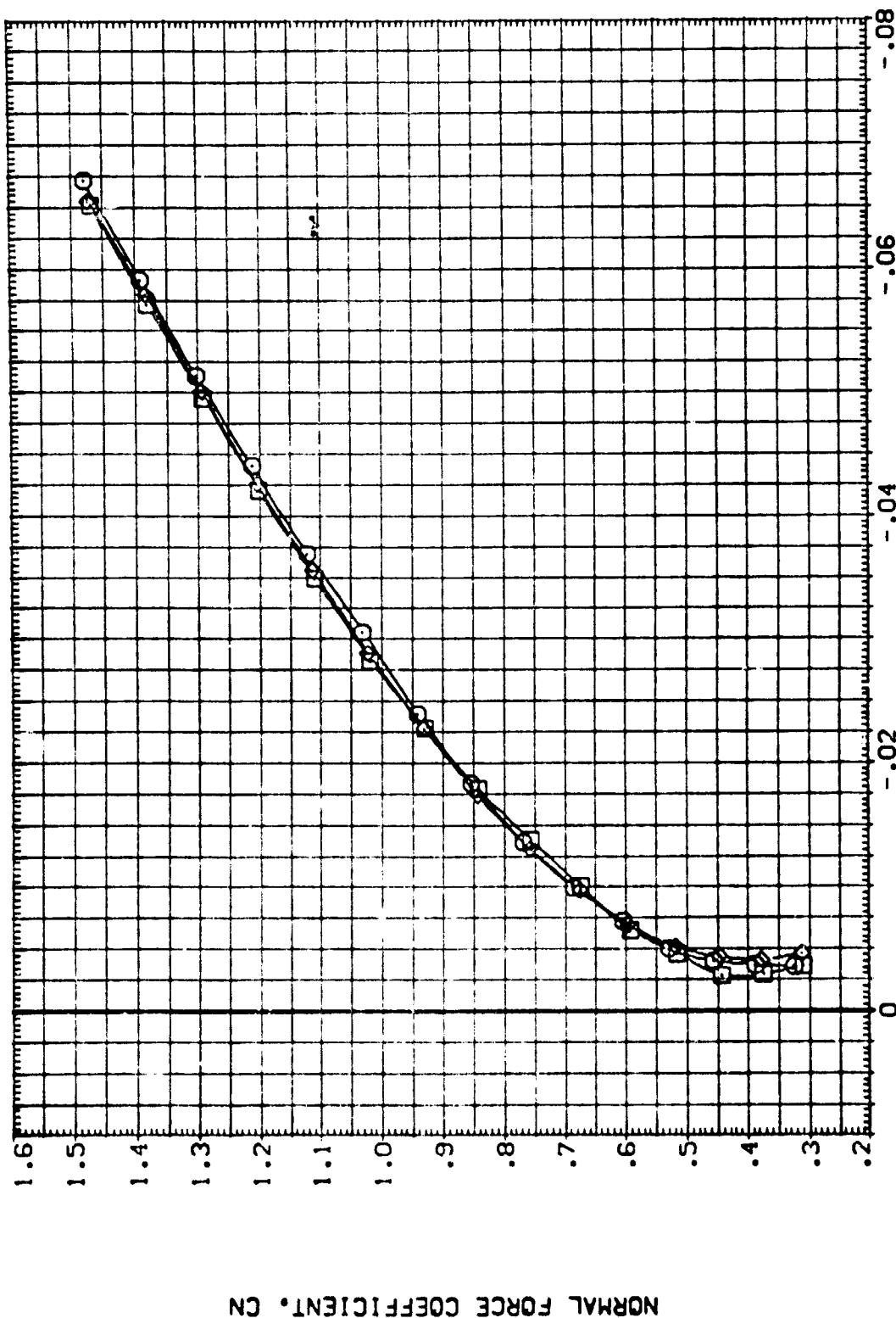


FIG. 4 EFFECT OF OMS PODS  
(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1'0005)	0A79 B26 C9 E43 F8 N28 R5 V8 V116	.000	.000	.000	.000	SREF 2630.0000 SQ.FT.
(C1'0001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	UREF 474.8100 IN.
(C1'0003)	0A79 B26 C9 E43 F8 M7 N28 R5 V8 V116	.000	.000	.000	.000	BREF 936.6800 IN.
						XMRP 1076.6800 IN.
						YMRP .0000 IN.
						ZMRP .0000 IN.
						SCALE .0150

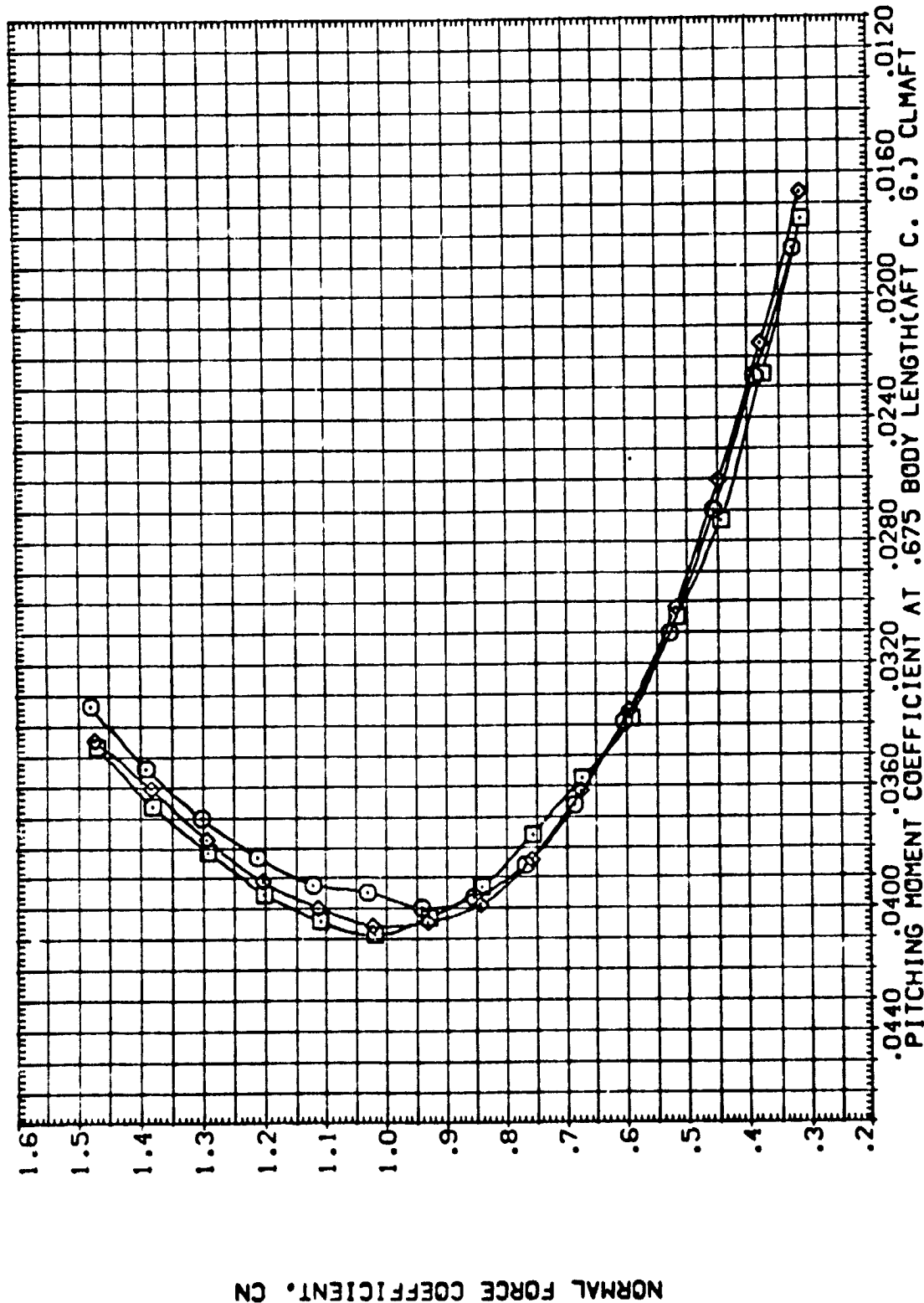


FIG. 4 EFFECT OF OMS PODS

(A)MACH = 8.00

CENTER OF PRESSURE LOCATION AS A FRACTION OF BODY LENGTH, XCP/L

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CTV006) 0A79 B26 C9 E43 F8 N28 R5 V8 V116  
 (CTV001) 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116  
 (CTV009) 0A79 B26 C9 E43 F8 M7 N28 R5 V8 V116

ELV-L0 ELV-L1 ELV-R1 ELV-R0 REFERENCE INFORMATION  
 .000 .000 .000 .000 SSTF 2690.0000 50. FT.  
 .000 .000 .000 .000 LREF 474.8100 IN.  
 .000 .000 .000 .000 BREF 936.6800 IN.  
 .000 .000 .000 .000 XTRP 1075.6800 IN.  
 .000 .000 .000 .000 YTRP 375.0000 IN.  
 .000 .000 .000 .000 ZTRP 375.0000 IN.  
 .000 .000 .000 .000 SCALE .0150

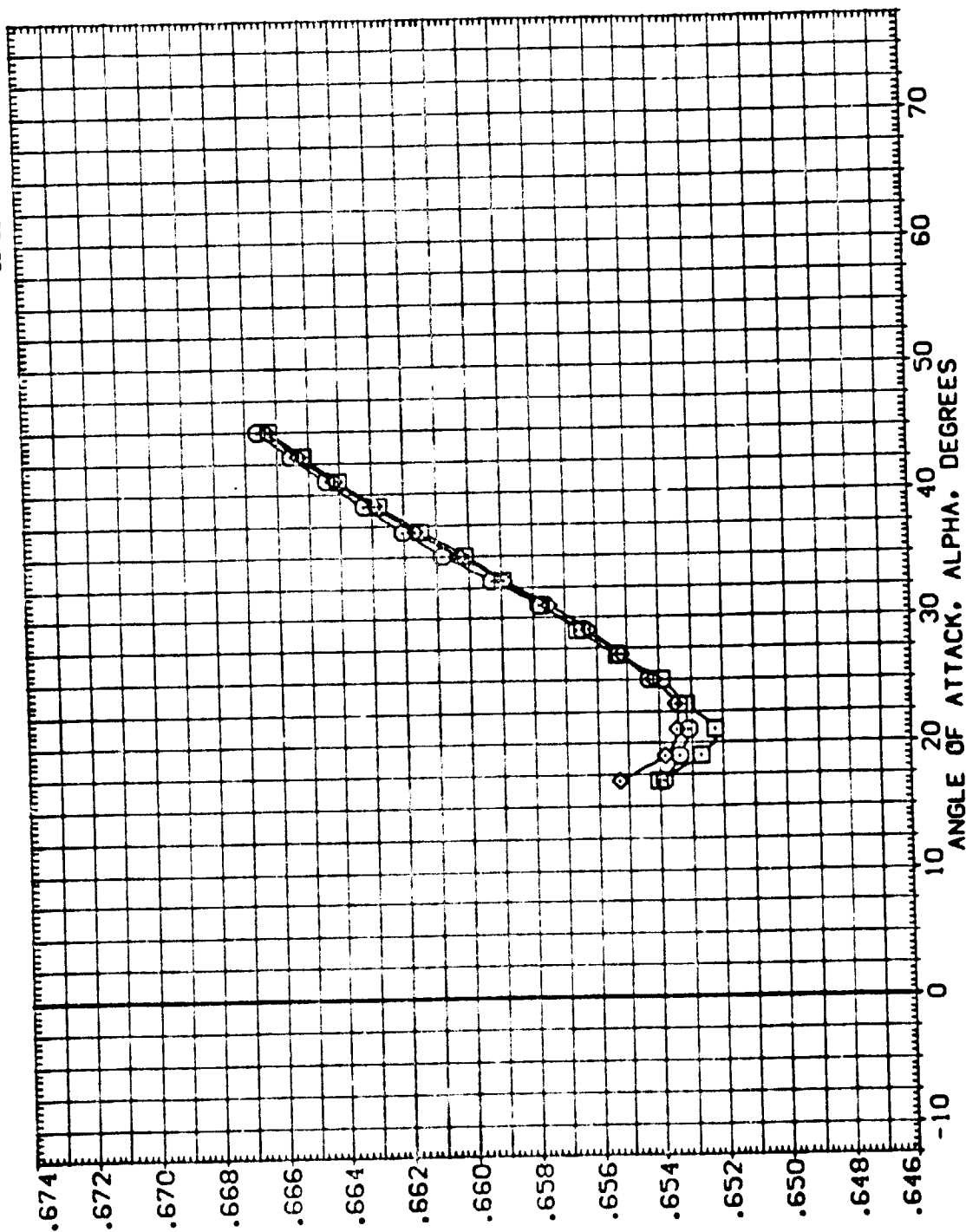


FIG. 4 EFFECT OF OMS PODS

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CTV006)    0A79 826 C9 E43 F8 M16 N28 R5 V8 V116  
 (CTV001)    0A79 826 C9 E43 F8 M16 N28 R5 V8 V116  
 (CTV009)    0A79 826 C9 E43 F8 M7 N28 R5 V8 V116

REFERENCE INFORMATION  
 STREF    2690.0000    SQ. FT.  
 LREF    474.8100    IN.  
 BREF    936.6800    IN. X0  
 YARP    1076.6800    IN. Y0  
 ZARP    .0000    IN. Z0  
 SCALE    375.0000    IN. Z0  
           .0150

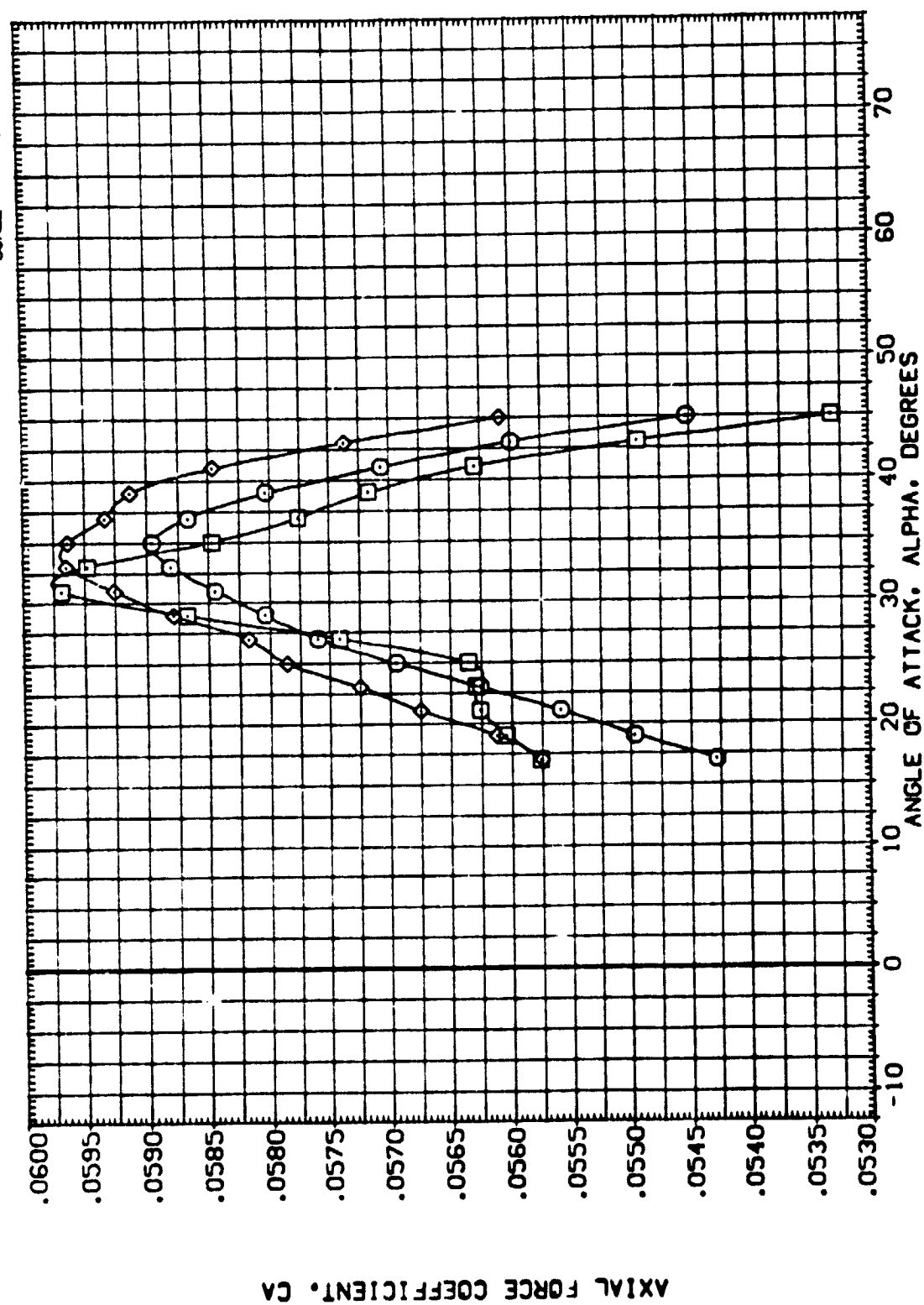


FIG. 4 EFFECT OF OMS PODS

(A)MACH = 8.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
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 (CIV007) 0A79 826 C9 E43 F8 N16 N28 R5 V8 VII6  
 (CIV008) 0A79 826 C9 E43 F8 M7 N28 R5 V8 VII6

ELV-L0 ELV-L1 ELV-R1 ELV-R0 REFERENCE INFORMATION  
 .000 .000 .000 .000 SREF 2690.0000 SQ.FT.  
 .000 .000 .000 .000 LREF 174.8100 IN.  
 .000 .000 .000 .000 BREF 936.6800 IN.  
 .000 .000 .000 .000 XREF 1076.6800 IN.X3  
 .000 .000 .000 .000 YREF 375.0000 IN.Y3  
 .000 .000 .000 .000 ZREF 375.0000 IN.Y3  
 SCALE .0150

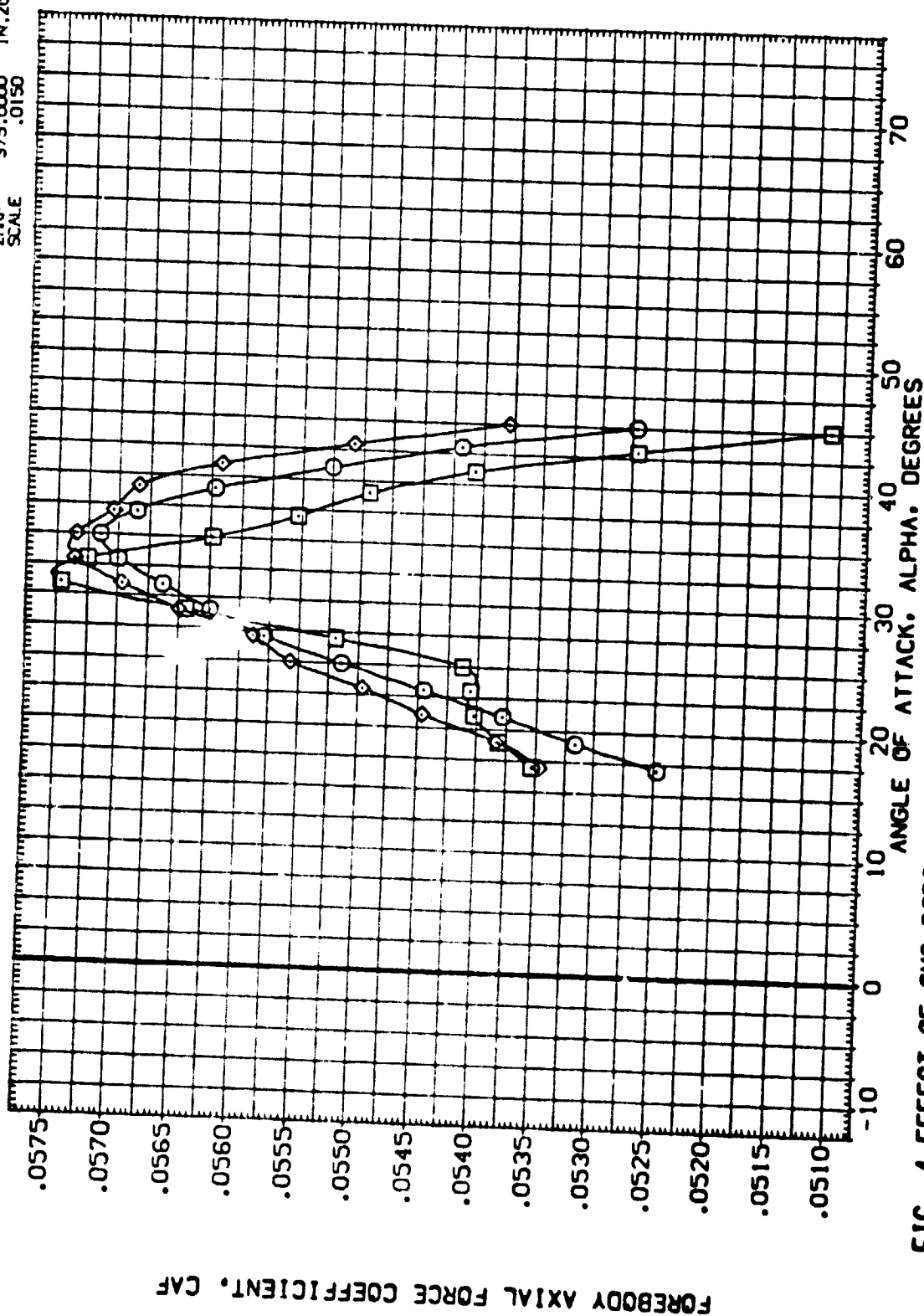


FIG. 4 EFFECT OF OMS POOS

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CIV005)	0A79 B26 C9 E43 F8 N28 R5 V8 VII6	.000	.000	.000	.000	SREF 2650.0000 SQ.FT.
(CIV001)	0A79 B26 C9 E43 F8 M15 N28 R5 V8 VII6	.000	.000	.000	.000	LREF 474.8100 IN.
(CIV009)	0A79 B26 C9 E43 F8 M7 N28 R5 V8 VII6	.000	.000	.000	.000	GREF 936.6800 IN.
						XREF 1076.6800 IN.X8
						YREF .0000 IN.Y8
						ZREF 375.0000 IN.Z8
						SCALE .0150

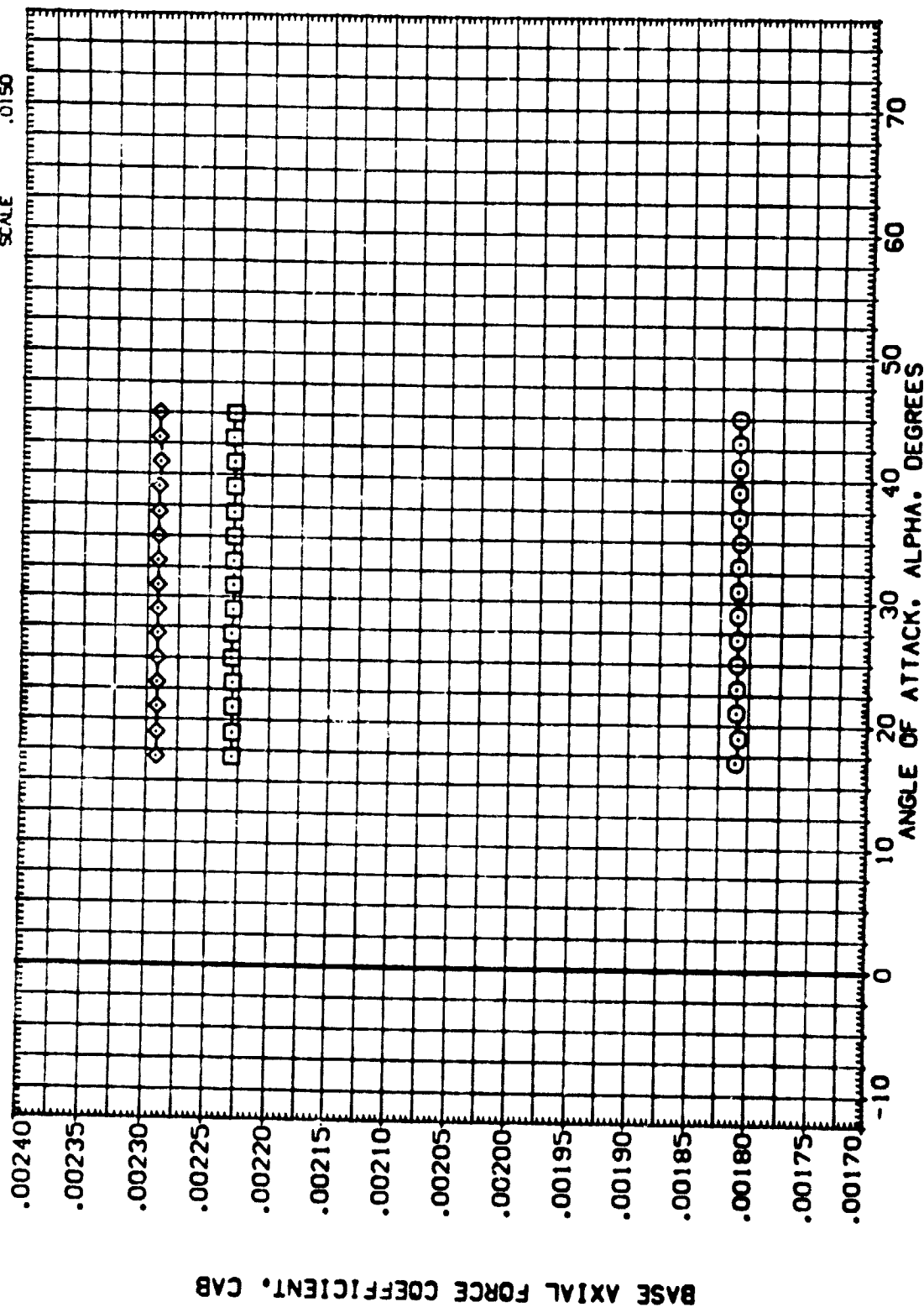


FIG. 4 EFFECT OF QMS PODS

(A)MACH = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CIV006)	DATA 826	C9 E43 F8	N28 RS	VS V116
(CIV001)	DATA 826	C9 E43 F8	M16	N28 RS
(CIV009)	DATA 826	C9 E43 F8	M7	N28 RS

ELV-LG ELV-LJ ELV-RI ELV-RO

REF	2630.0000	50. FT.
LREF	474.8100	IN.
BREF	936.6900	IN.
YREF	1076.6900	IN.
ZREF	375.0000	IN.
SCALE	.0150	

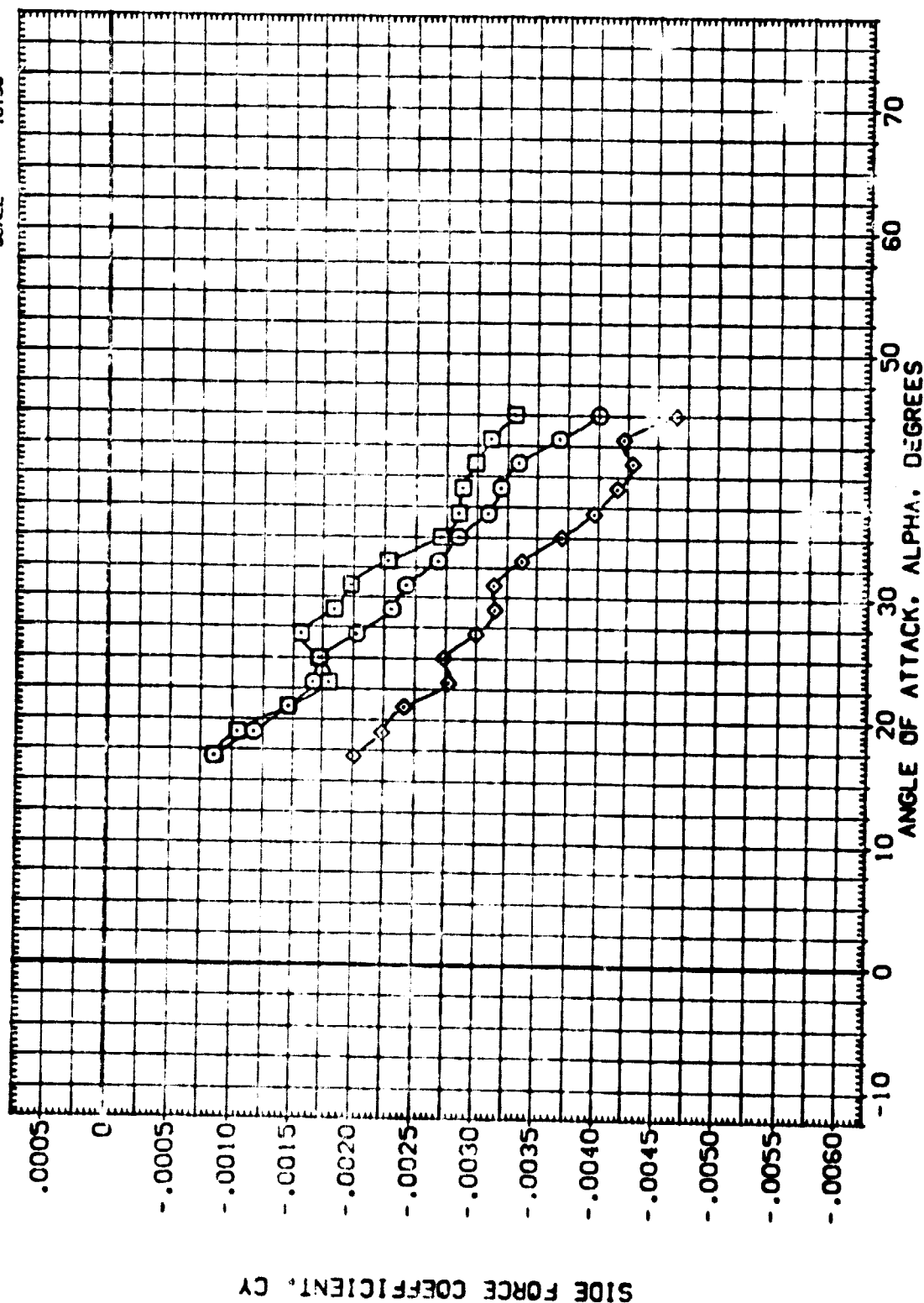


FIG. 4 EFFECT OF OMS PODS

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(A)POC1	DATA 826 C9 E43 F8 M08 RS V8 V116	.000	.000	.000	.000	SLF 2030.0000 50. FT.
(A)POC1	DATA 826 C9 E43 F8 M16 M08 RS V8 V116	.000	.000	.000	.000	REF 474.8100 IN.
(A)POC1	DATA 826 C9 E43 F8 M7 M08 RS V8 V116	.000	.000	.000	.000	REF 936.6800 IN.
						REF 1076.6800 IN. X0
						REF 375.0000 IN. Y0
						REF 375.0000 IN. Z0
						SCALE .0150

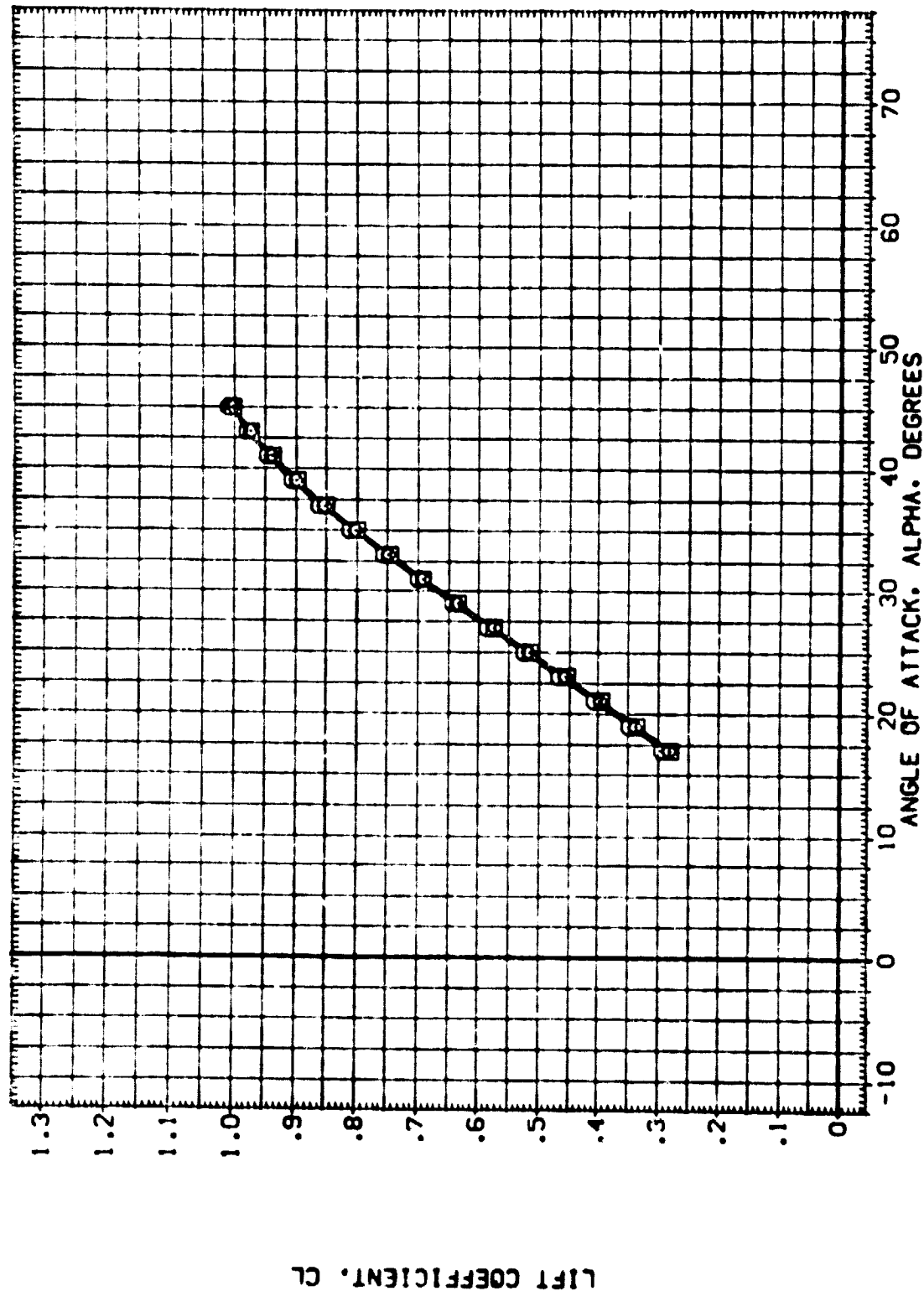


FIG. 4 EFFECT OF OMS PODS

(A)MACH = 8.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L6	ELV-L1	ELV-R1	ELV-R6	REFERENCE INFORMATION
(ATW005)	0A79 B26 C9 E43 F8 N28 RS V8 V116	.000	.000	.000	.000	SREF 2650.0000 59.FT.
(ATV001)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	.000	.000	.000	.000	LREF 474.8100 IN.
(ATW003)	0A79 B26 C9 E43 F8 M7 N28 RS V8 V116	.000	.000	.000	.000	BREF 936.6800 IN.X0
						YREF 1076.6800 IN.Y0
						ZREF .0000 IN.Z0
						SCALE .0150

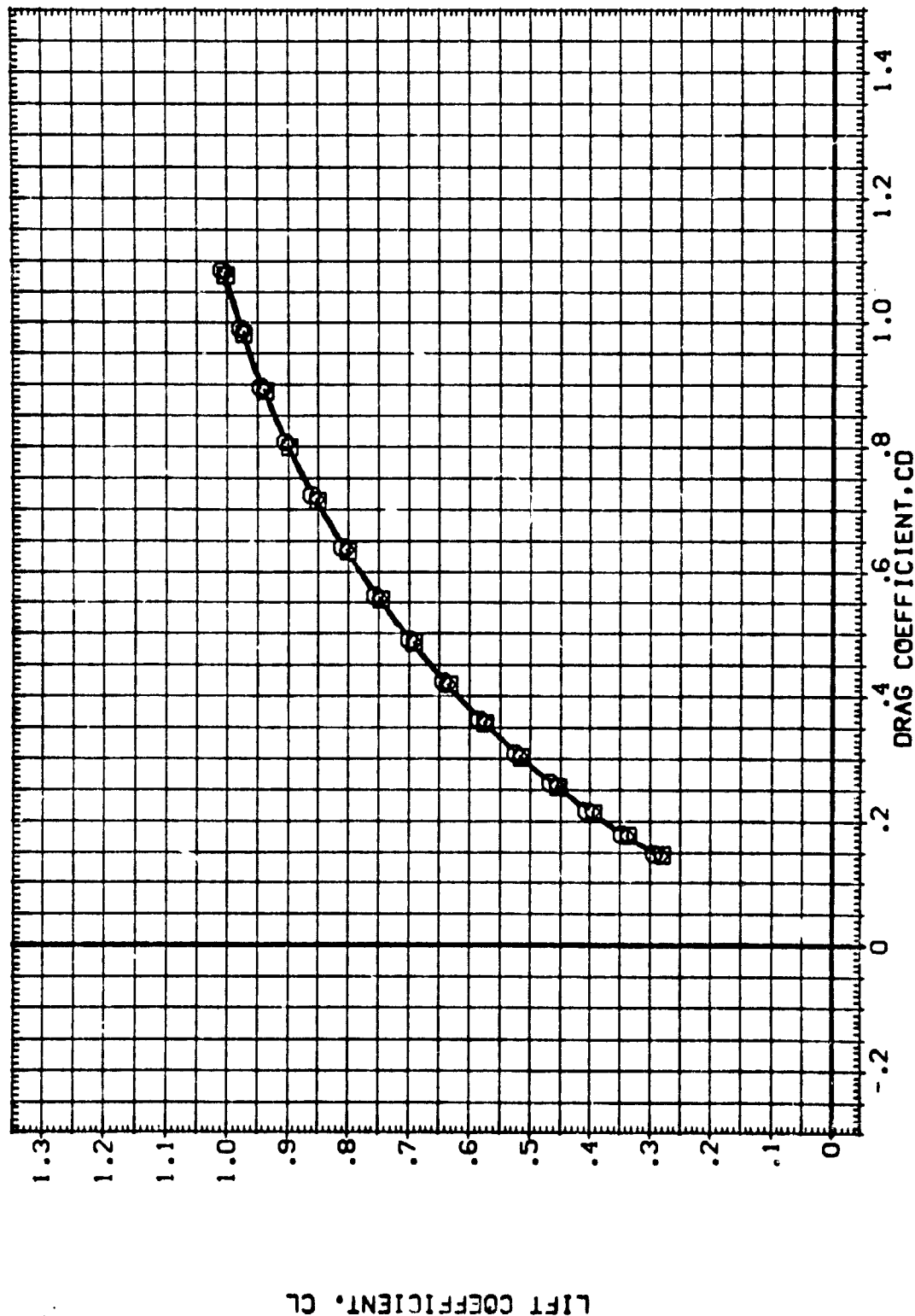


FIG. 4 EFFECT OF OMS PODS

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(ATV006)	Q 0A79 B26 C9 E43 F8 N28 R5 V8 V116	.000	.000	.000	.000	SREF 2690.0000 SQ.FT.
(ATV001)	Q 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	LREF 474.8100 IN.
(ATV009)	Q 0A79 B26 C9 E43 F8 M7 N28 R5 V8 V116	.000	.000	.000	.000	BREF 936.6800 IN.
						XREF 1076.6800 IN.
						YREF .0000 IN.
						ZREF .0000 IN.
						SCALE .0150

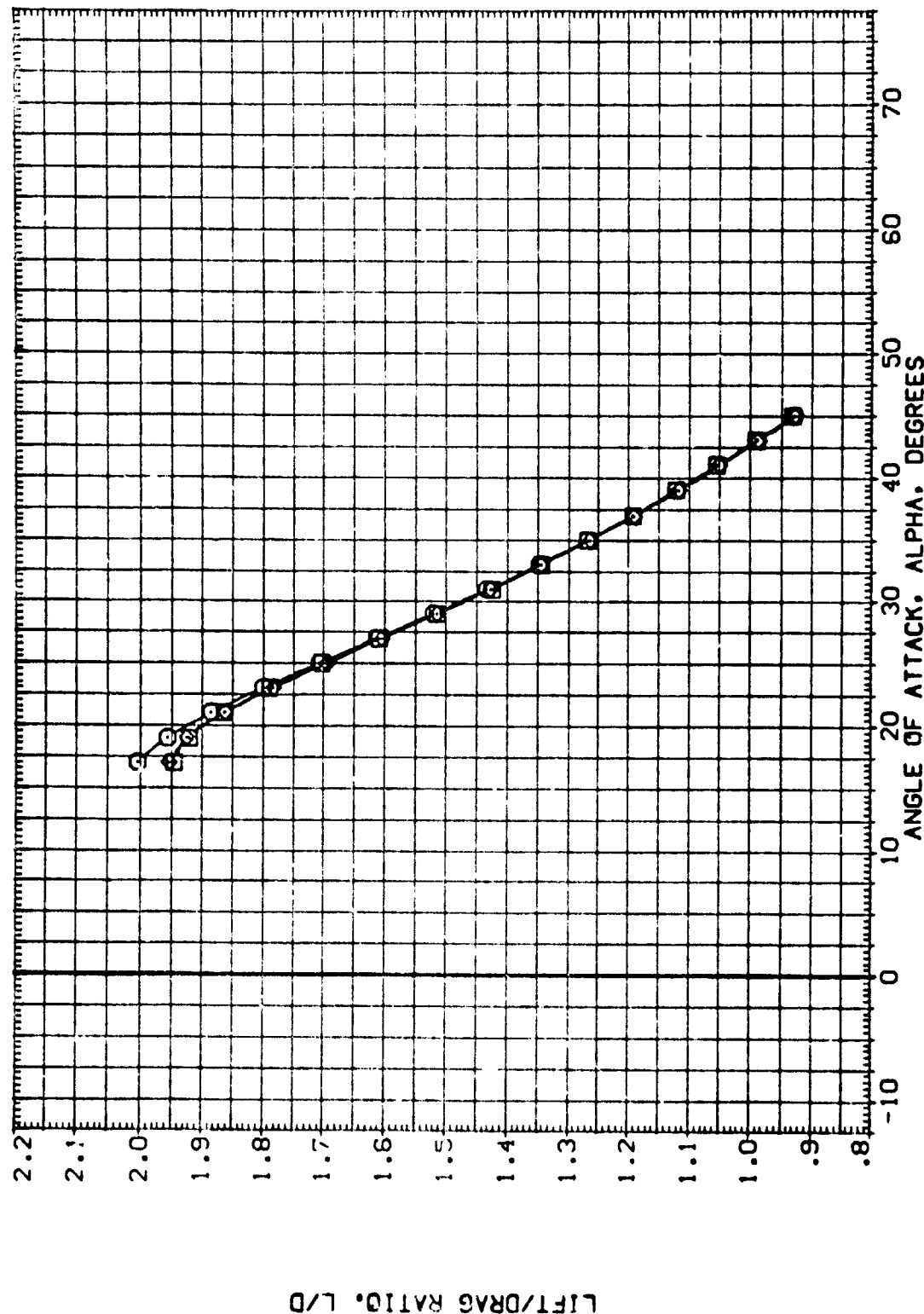


FIG. 4 EFFECT OF QMS PODS

(A)MACH = 8.00

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      EL-GAP

(G1W015)      □      0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116      1.000

(G1W042)      □      0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116 SEALED GAP      .000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.

LREF 474.8100 IN.

BREF 536.8800 IN.

XPRP 1076.8800 IN.X0

YPRP .0000 IN.Y0

ZPRP 375.0000 IN.Z0

SCALE .0150

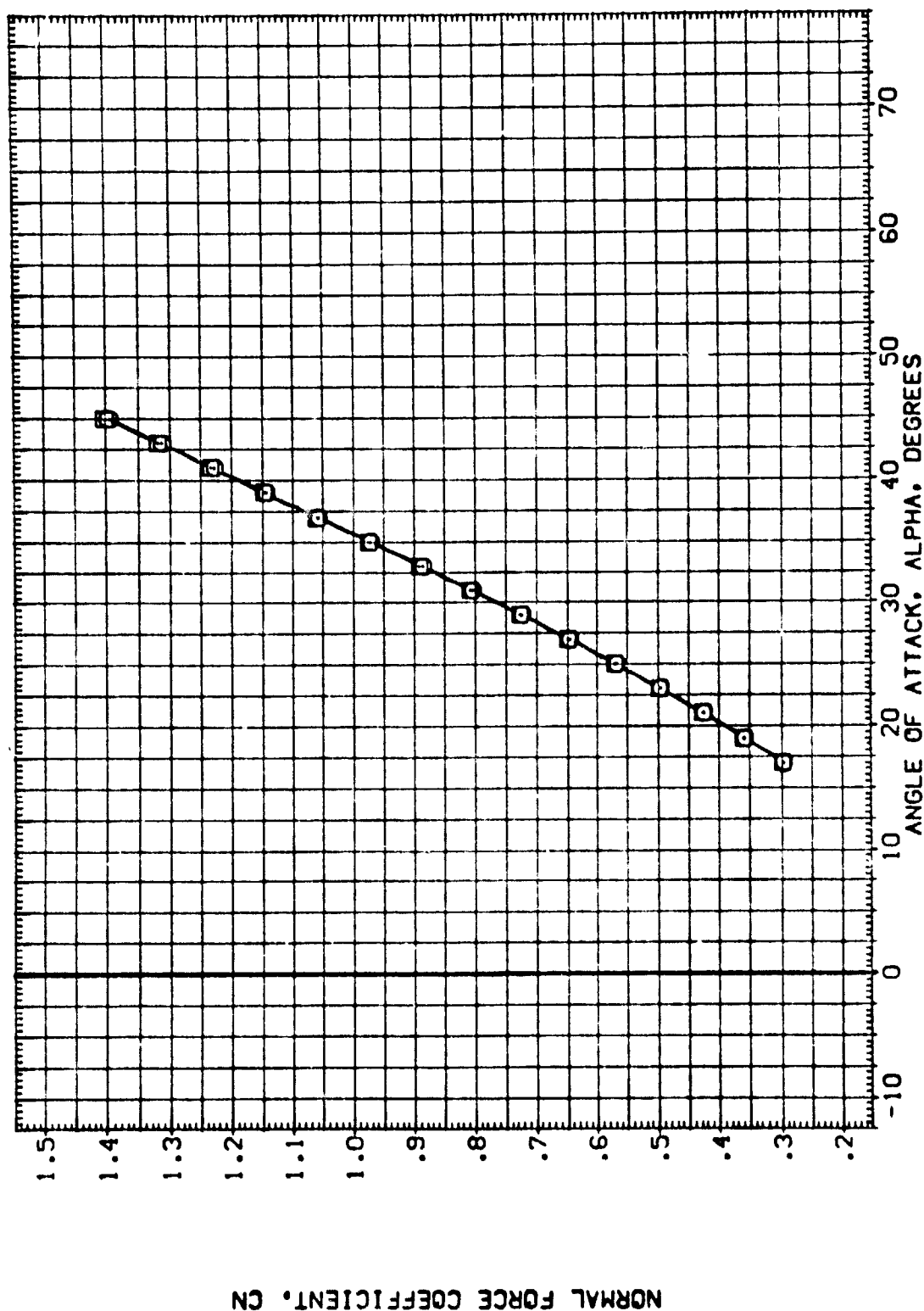


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00



REFERENCE INFORMATION  
 SREF 2690.0000 SQ.FT.  
 LREF 174.3100 IN.  
 BREF 936.6800 IN.X9  
 XREF 1076.6800 IN.Y9  
 YREF 375.0000 IN.Z9  
 ZREF .0150

EL-GAP  
 1.000  
 .000

DATA SET SYMBOL  
 (GT4015) 8  
 (GT4042) 8

CONFIGURATION DESCRIPTION  
 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116  
 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116 SEALED GAP

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C. G.) CLMFW

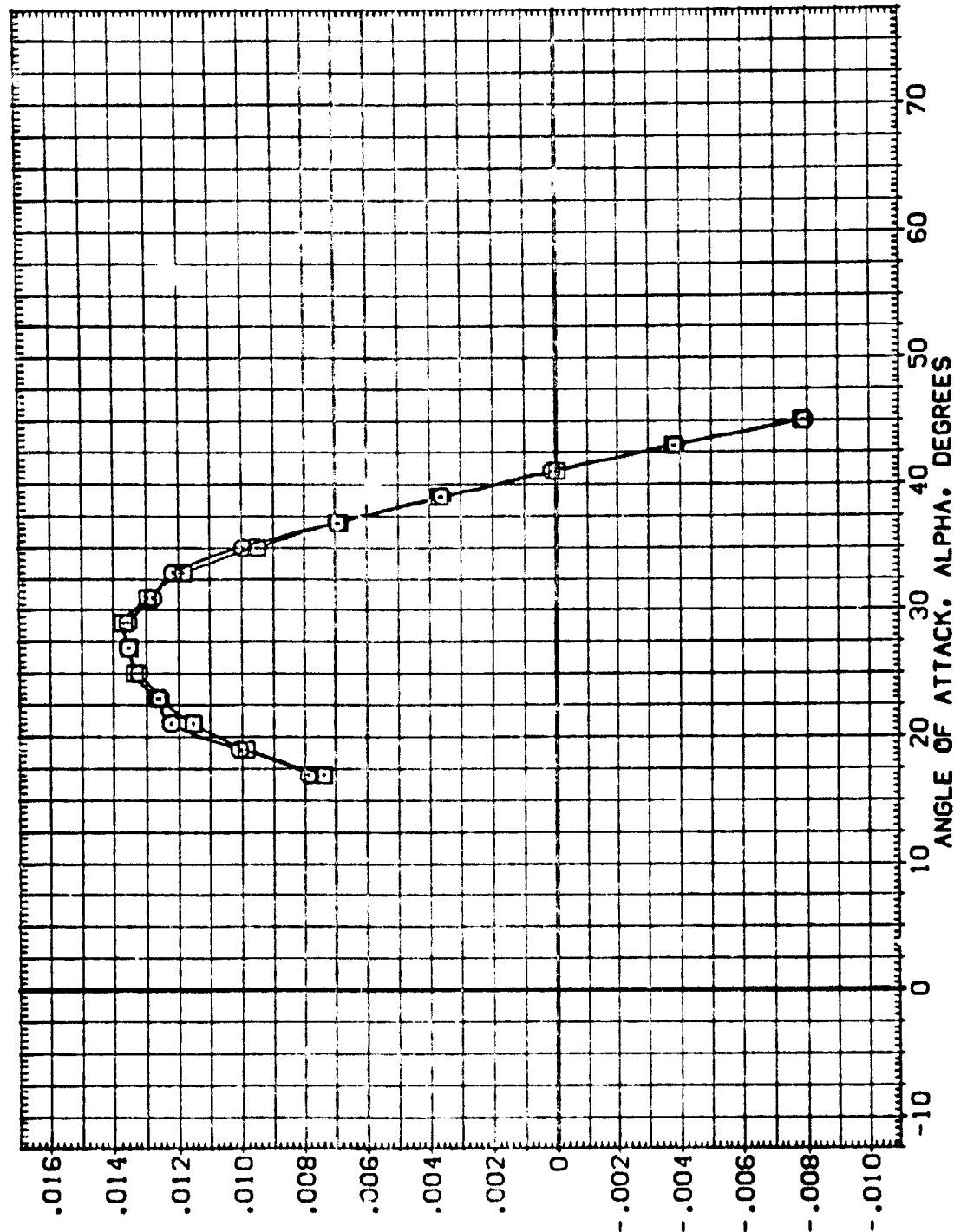


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00

REFERENCE INFORMATION  
 SREF 2690.0000 SQ.FT.  
 LREF 471.8100 IN.  
 BREF 936.6800 IN.  
 XMRP 1076.6800 IN.  
 YMRP .0000 IN.  
 ZMRP 375.0000 IN.  
 SCALE .0150

EL-GAP  
 1.000  
 .000

DATA SET SYMBOL (G1V015) (G1V042)  
 CONFIGURATION DESCRIPTION  
 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116  
 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116 SEALED GAP

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH(AFT C. G.) CLMFT

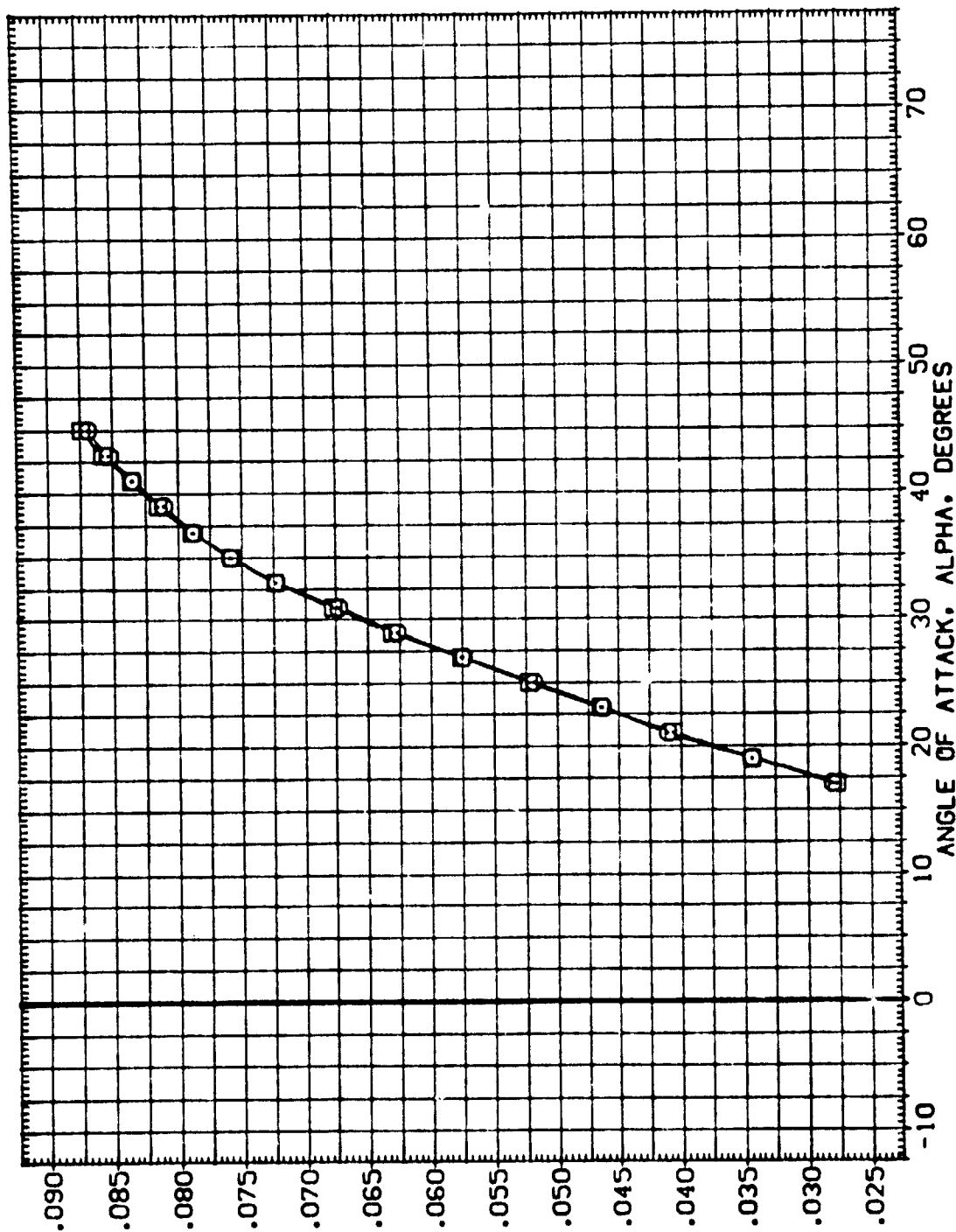
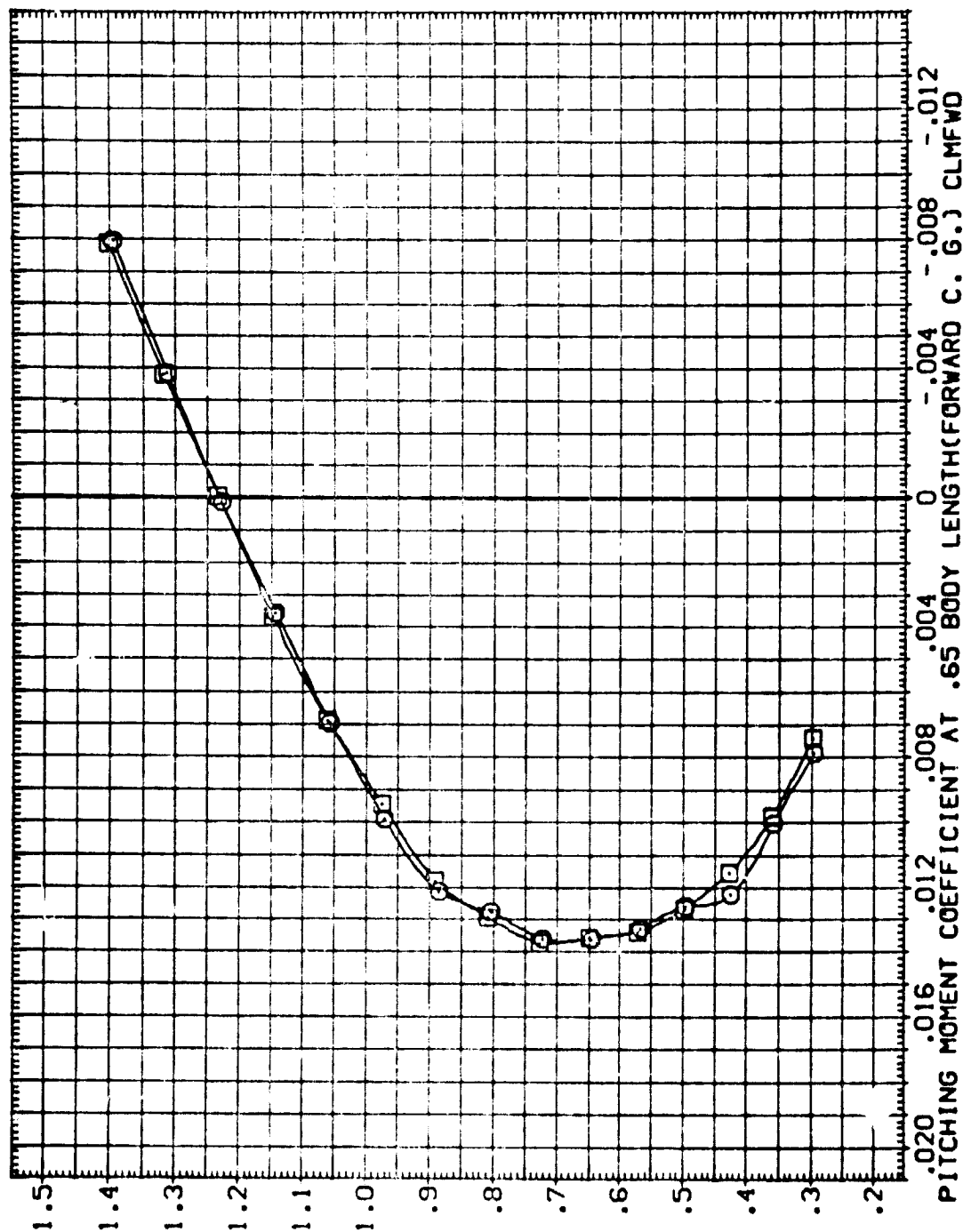


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    EL-GAP  
 (G1V015)    8    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116    1.000  
 (G1V042)       0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116 SEALED GAP    .000

REFERENCE INFORMATION  
 SREF    2690.0000    SQ.FT.  
 LREF    474.8100    IN.  
 BREF    936.6800    IN.  
 XREF    1076.6800    IN.  
 YREF    375.0000    IN.  
 ZREF    375.0000    IN.  
 SCALE    .0150



NORMAL FORCE COEFFICIENT, CN

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C. G.) CLMFW

FIG. 5 EFFECT OF SEALING ELEVON GAP

(MACH = 8.00)

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      EL-GAP

(G1W015)      □      DAY9 B26 C9 E43 F8 M16 N28 R5 V8 V116      1.000

(G1W042)      □      DAY9 B26 C9 E43 F8 M16 N28 R5 V8 V116 SEALED GAP      .000

REFERENCE INFORMATION

SREF      2690.0000      SQ.FT.

LREF      474.8100      IN.

BREF      936.6800      IN.

XPRP      1076.0000      IN.X0

YPRP      .0000      IN.Y0

ZPRP      375.0000      IN.Z0

SCALE      .0150

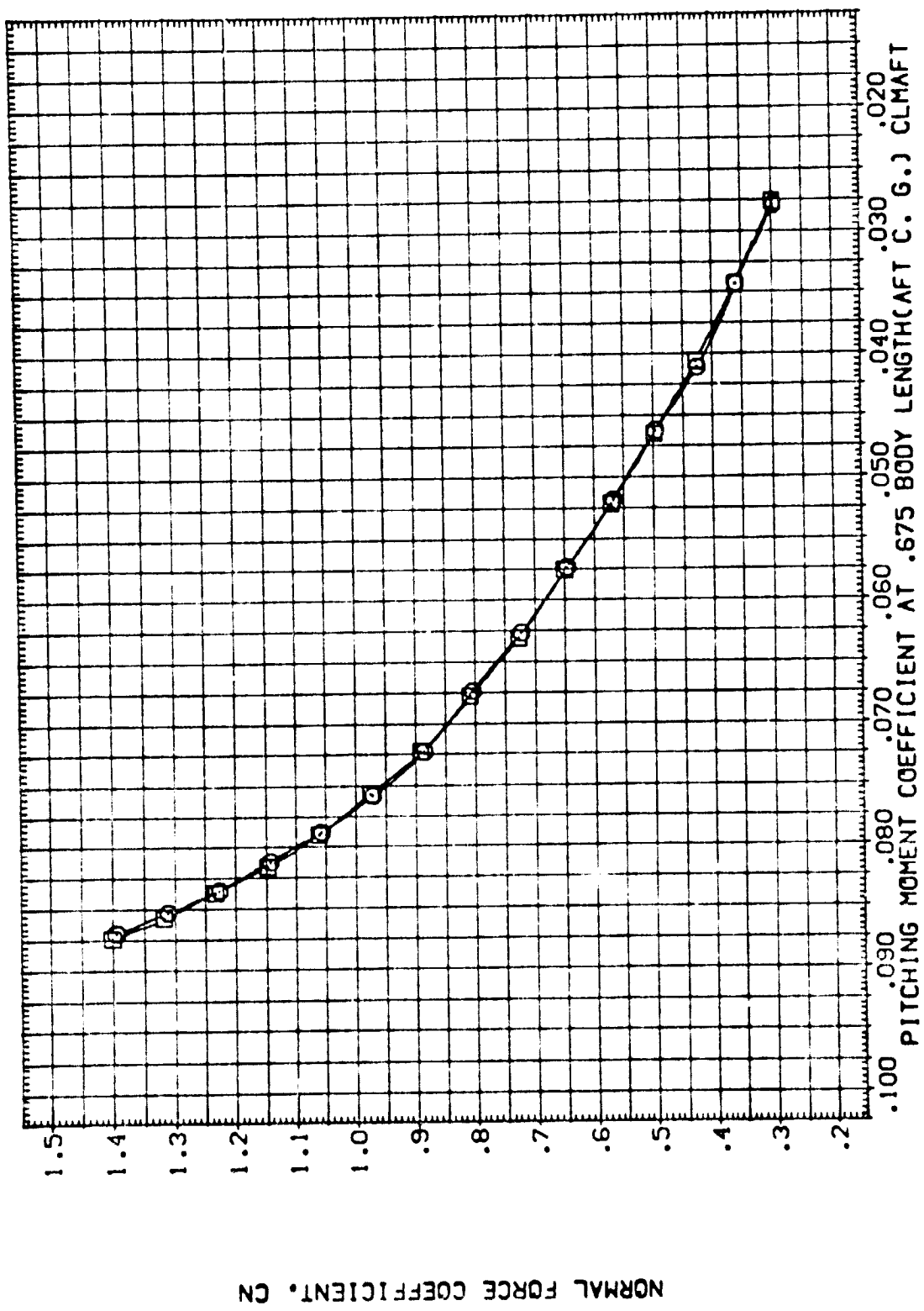


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    EL-GAP

[G1V015]    □    0A79 B06 C9 E43 F8 H16 N08 R5 V8 V116    1.000

[G1V042]    □    0A79 B06 C9 E43 F8 H16 N08 R5 V8 V116 SEALED GAP    1.000

REFERENCE INFORMATION

SREF 2690.0000 50. FT.

LREF 474.9100 IN.

BREF 936.6800 IN.

XPRP 1076.6800 IN. X0

YPRP .0000 IN. Y0

ZPRP 375.0000 IN. Z0

SCALE .0150

CENTER OF PRESSURE LOCATION AS A FRACTION OF BODY LENGTH, XCP/L

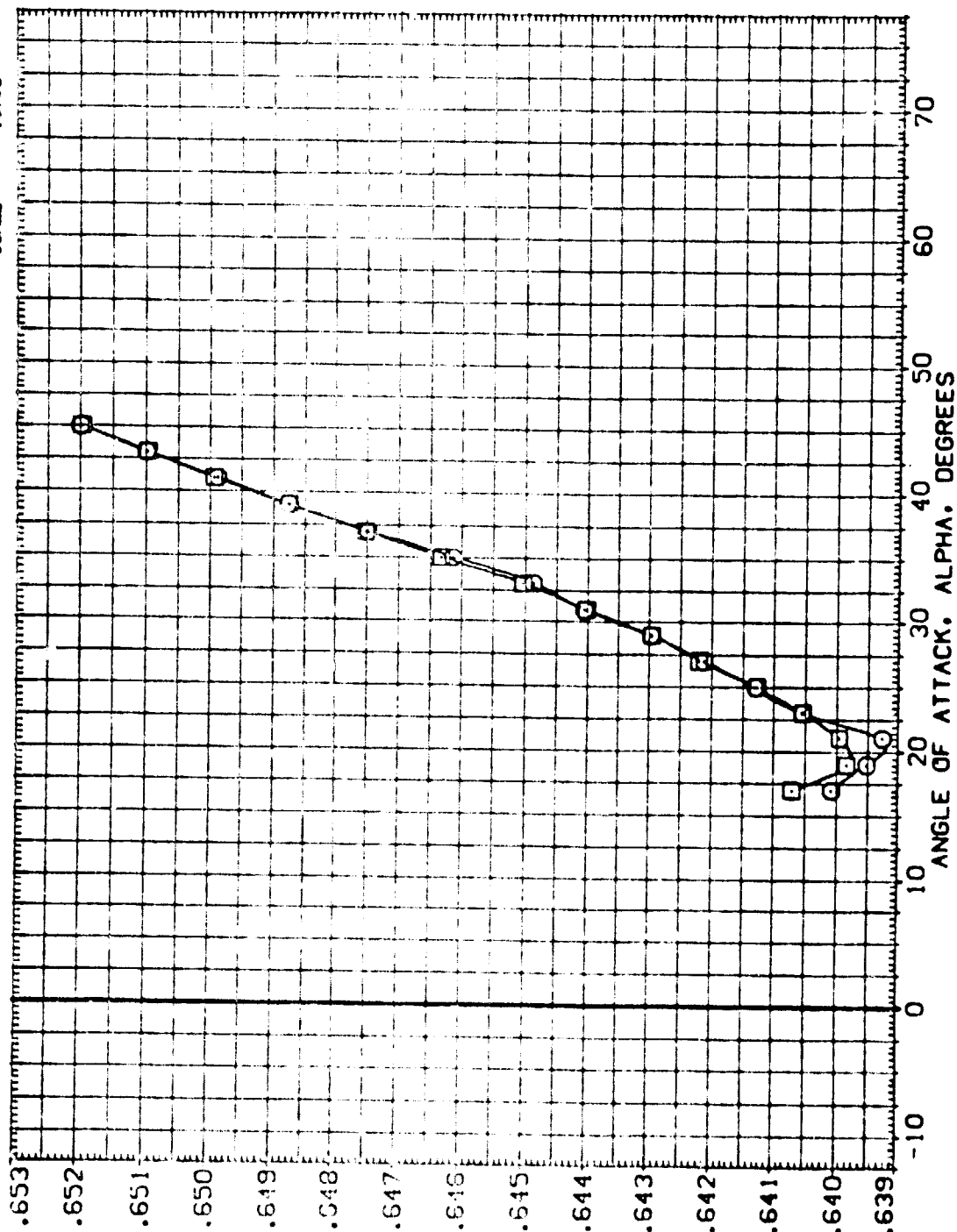


FIG. 5 EFFECT OF SEALING EVELON GAP

(A)MACH = 8.00

REFERENCE INFORMATION  
 SREF 2630.0000 50.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XPRP 1076.6800 IN.  
 YPRP 375.0000 IN.  
 ZPRP 375.0000 IN.  
 SCALE .0150

EL-GAP  
 1.000  
 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (G'V015) □ OA79 B26 C9 E43 F8 M16 N28 R5 V8 V116 SEALED GAP  
 (G'V042) □ OA79 B26 C9 E43 F8 M16 N28 R5 V8 V116 SEALED GAP

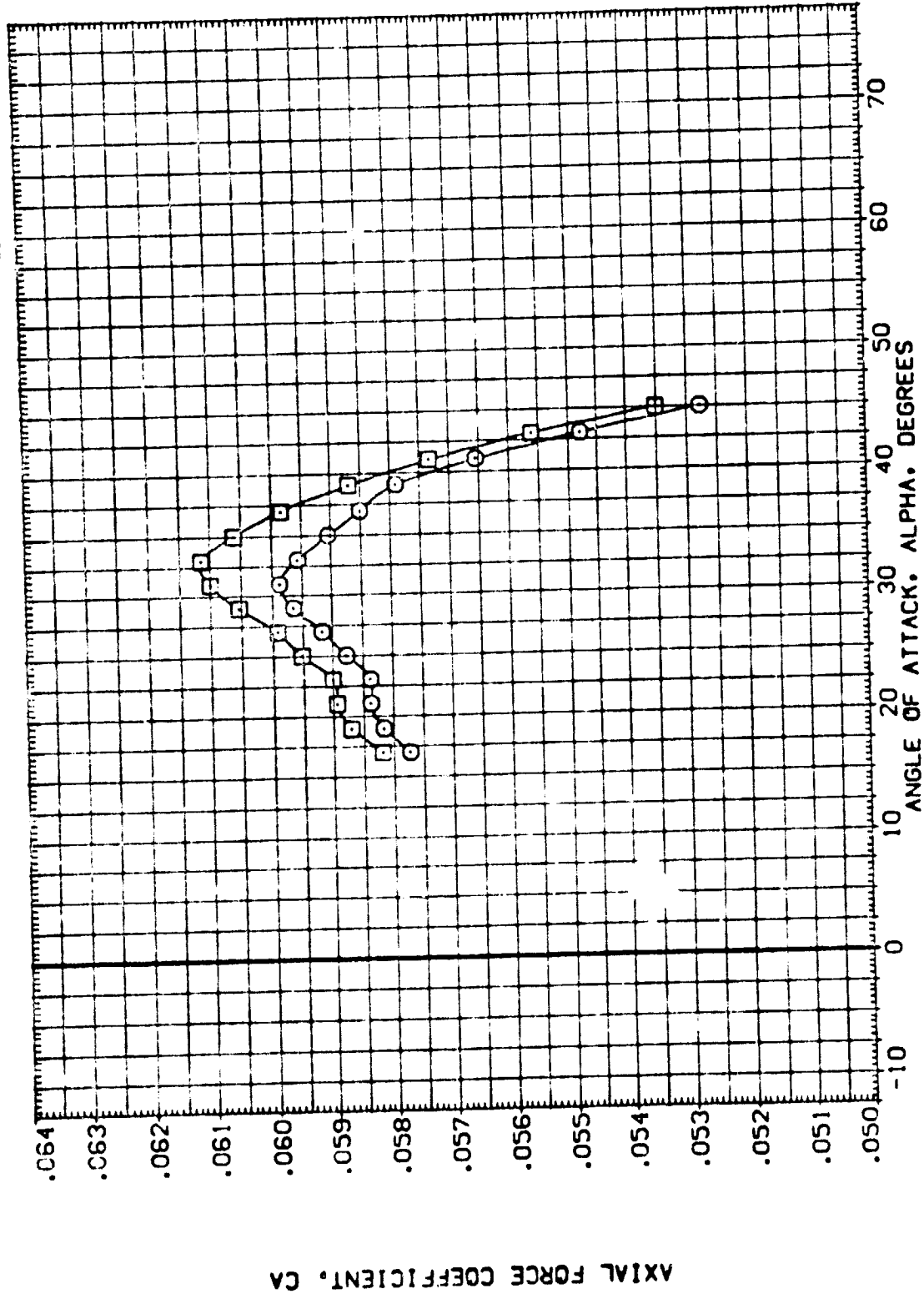


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00

DATA SET SYMBOL: 8  
 (STV015)  
 (STV042)

CONFIGURATION DESCRIPTION:  
 8A78 826 C9 E43 F8 H16 N28 RS V8 V118  
 8A79 826 C9 E43 F8 H16 N28 RS V8 V118 SEALED GAP

CL-GAP: 1.000  
 .000

REFERENCE INFORMATION:  
 REF: 2650.0000 52.171  
 LREF: 474.8100 IN.  
 SREF: 936.6800 IN.  
 XREF: 1076.6800 IN.  
 YREF: 375.0000 IN.  
 ZREF: 375.0000 IN.  
 SCALE: .0150

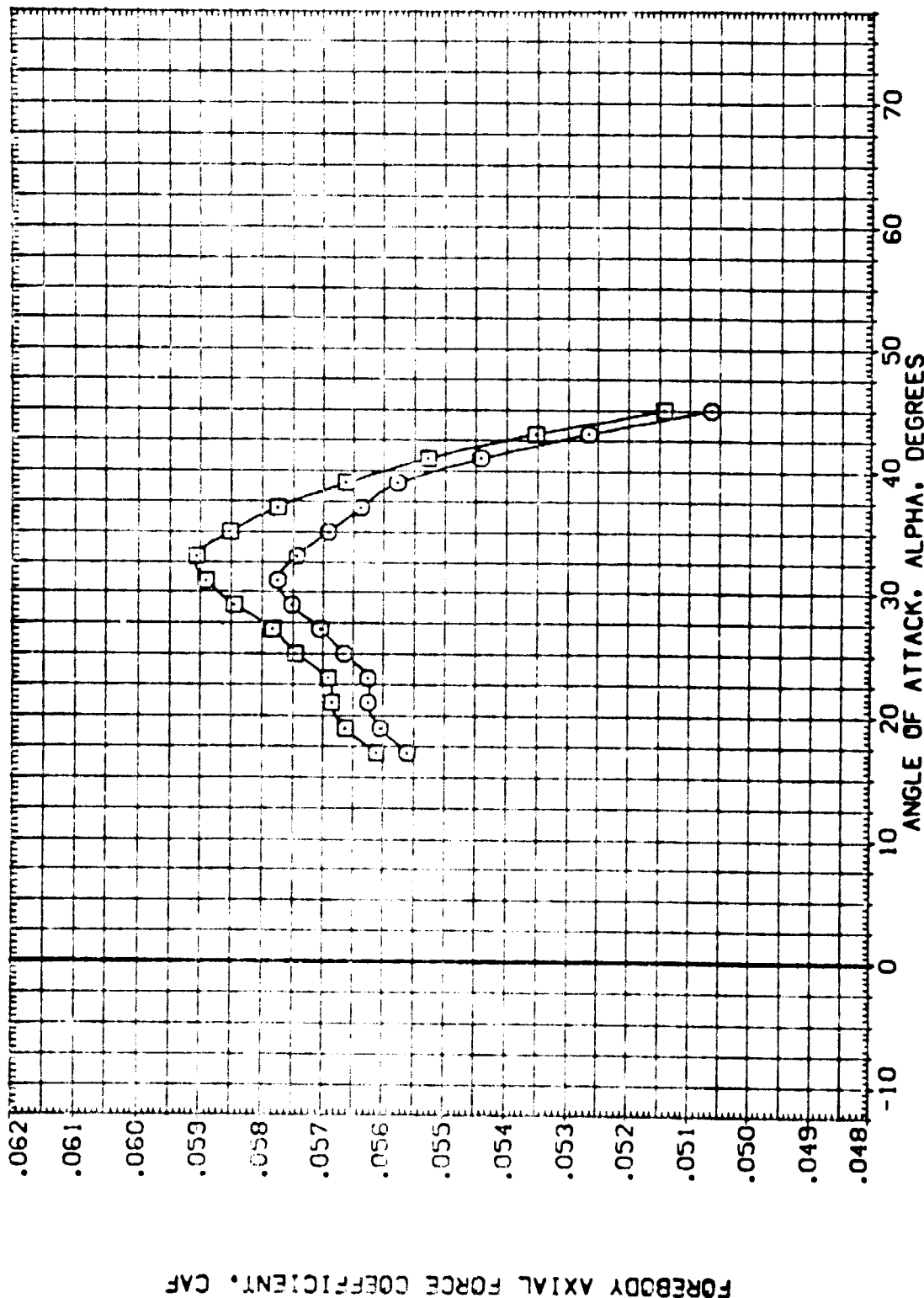
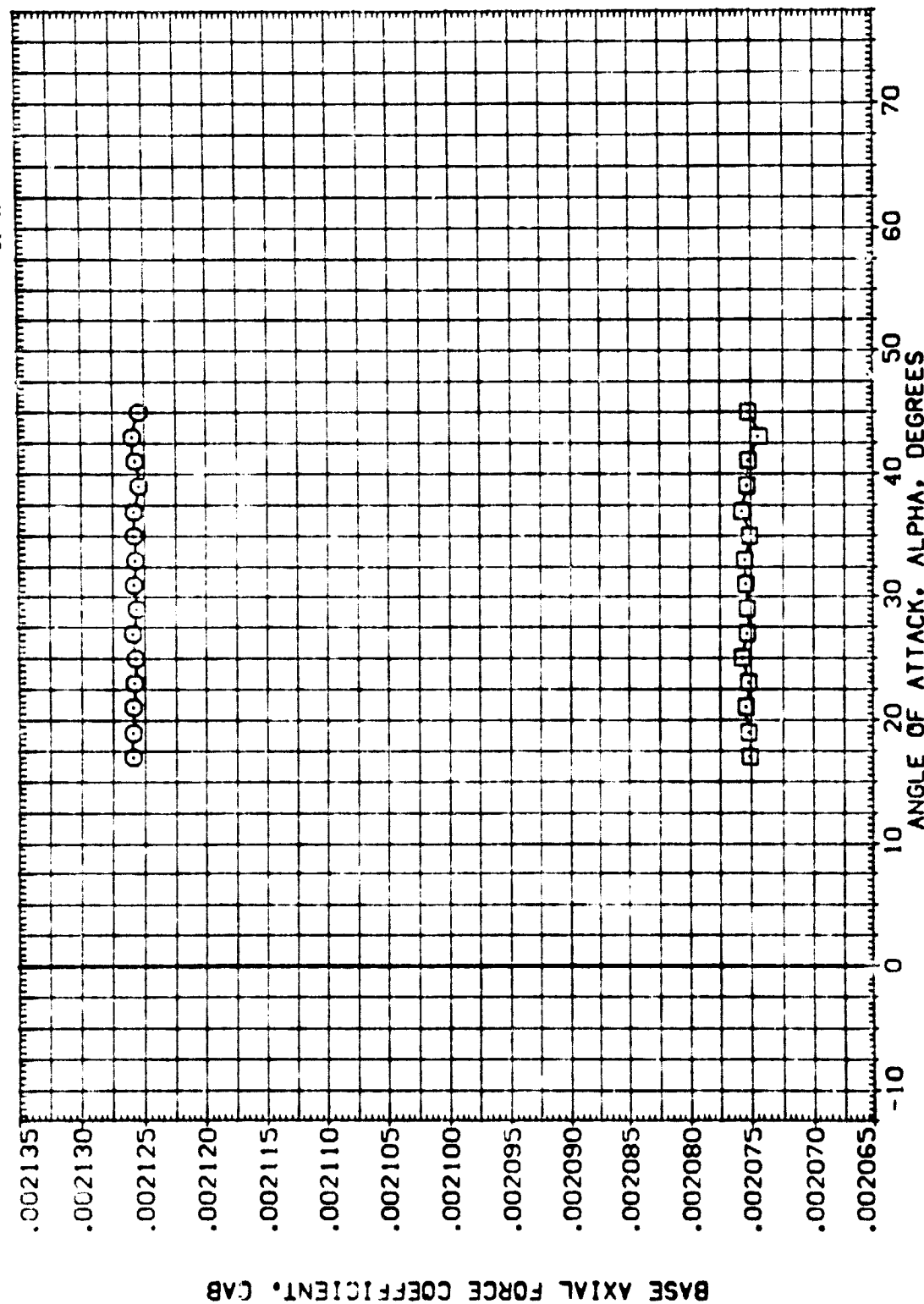


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00



**(A)MACH = 8.00**



DATA SET SYMBOL (GT0015) B  
 CONFIGURATION DESCRIPTION  
 0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116 SEALED GAP  
 EL-GAP 1.000

REFERENCE INFORMATION  
 SREF 2690.0000 SQ.FT.  
 LREF 47A.8100 IN.  
 BREF 956.6800 IN.  
 ATRP 1078.6800 IN.  
 YTRP .0000 IN.  
 ZTRP 375.0000 IN.  
 SCALE .0150

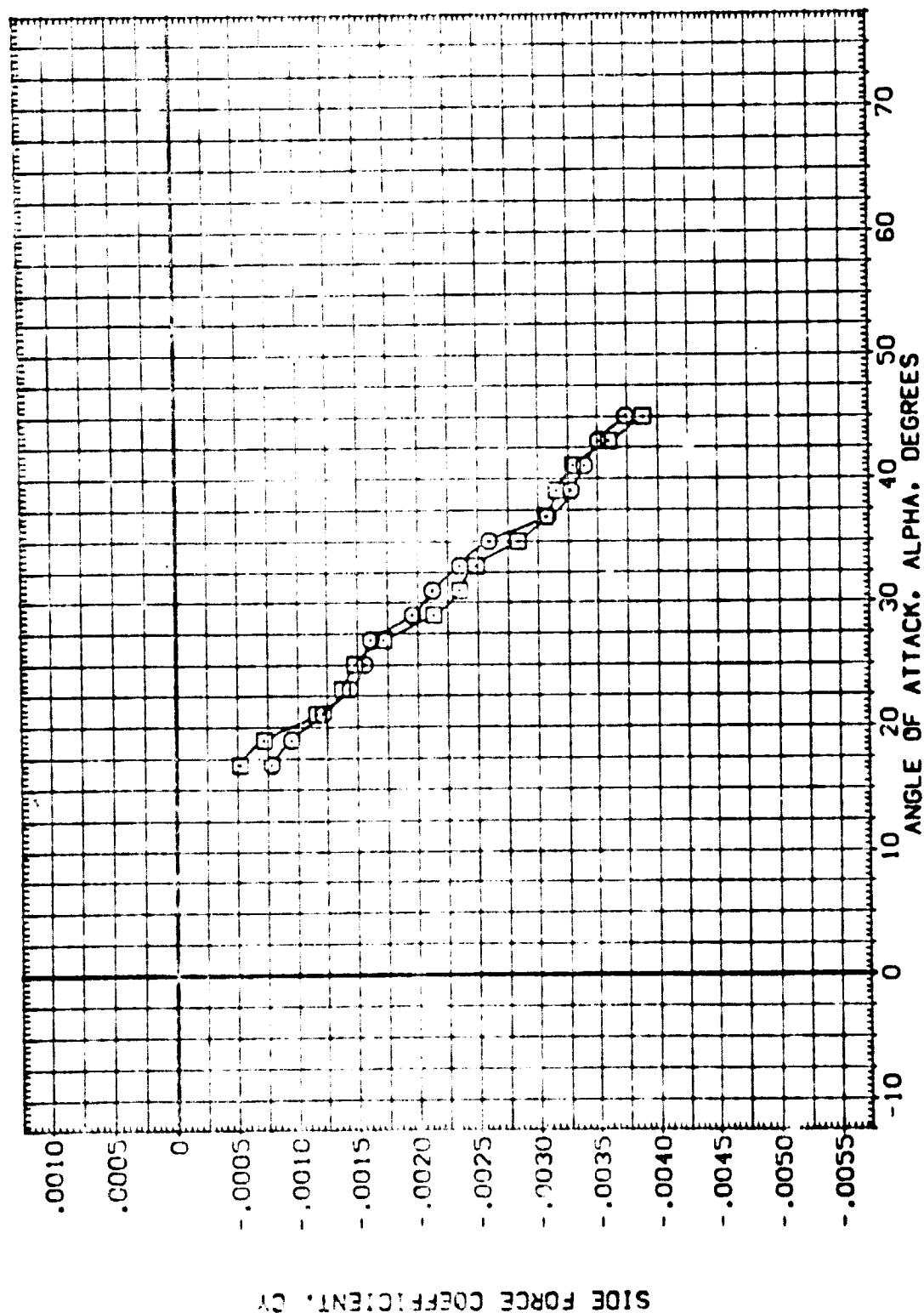


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00

DATA SET SYMBOL (HTW015) (HTW042)

CONFIGURATION DESCRIPTION  
 0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 0A79 R76 C9 E43 F8 H16 N28 R5 V8 V116 SEALED GAP

EL-GAP  
 1.000  
 1.000

REFERENCE INFORMATION  
 SREF 2630.0000 50.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XREF 1076.6800 IN. X0  
 YREF 375.0000 IN. Y0  
 ZREF 375.0000 IN. Z0  
 SCALE .0150

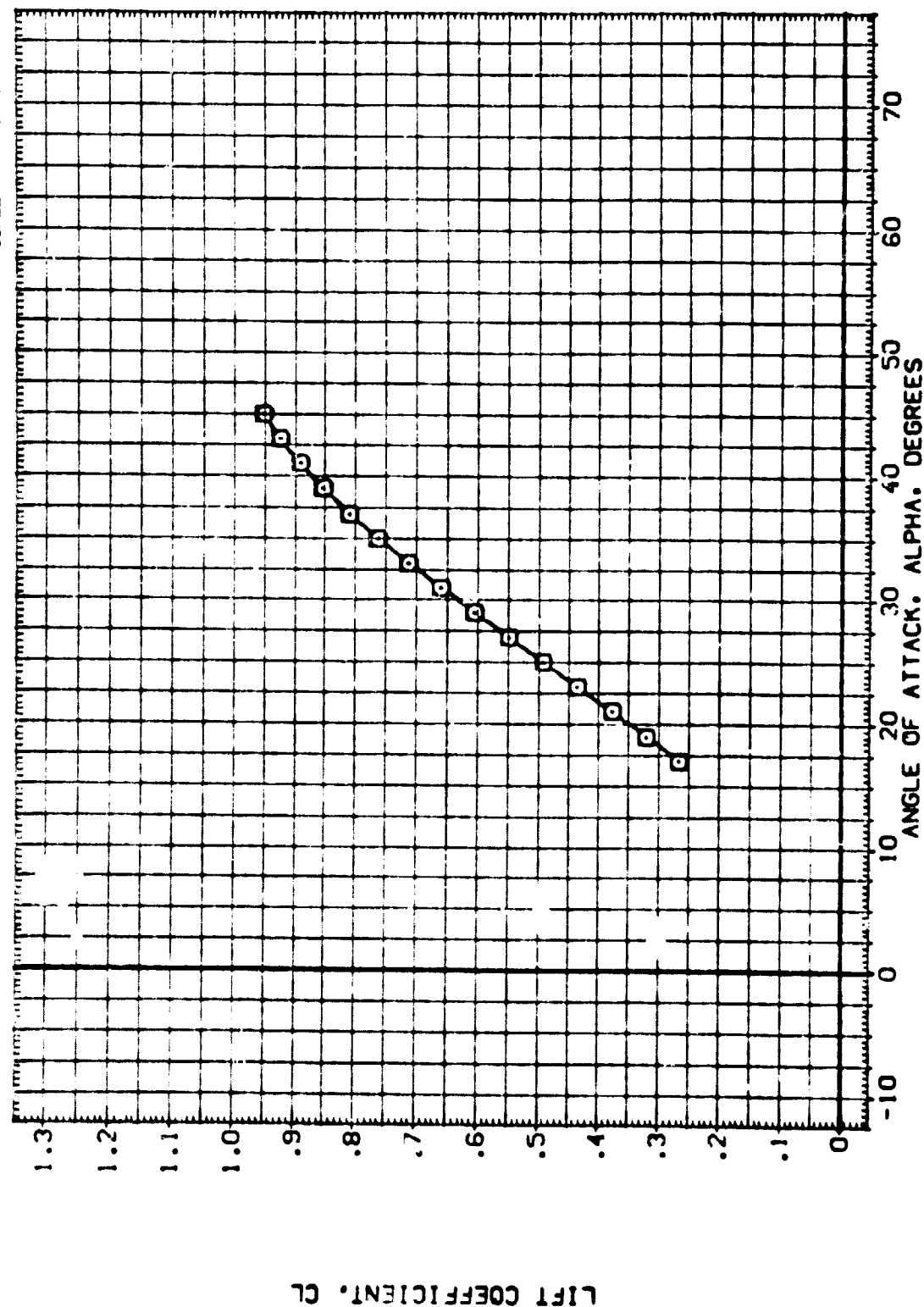


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      EL-GAP

(M1V015)      0479 626 C9 E43 F8 M16 N08 R5 V8 V116      1.000

(M1V012)      0479 626 C9 E43 F8 M16 N08 R5 V8 V116 SEALED GAP      1.000

REFERENCE INFORMATION

SREF 2690.0000 50.FT.

LREF 171.8100 IN.

BREF 936.6000 IN.

XPRP 1076.6800 IN.X0

YPRP .0000 IN.Y0

ZPRP 375.0000 IN.Z0

SCALE .0150

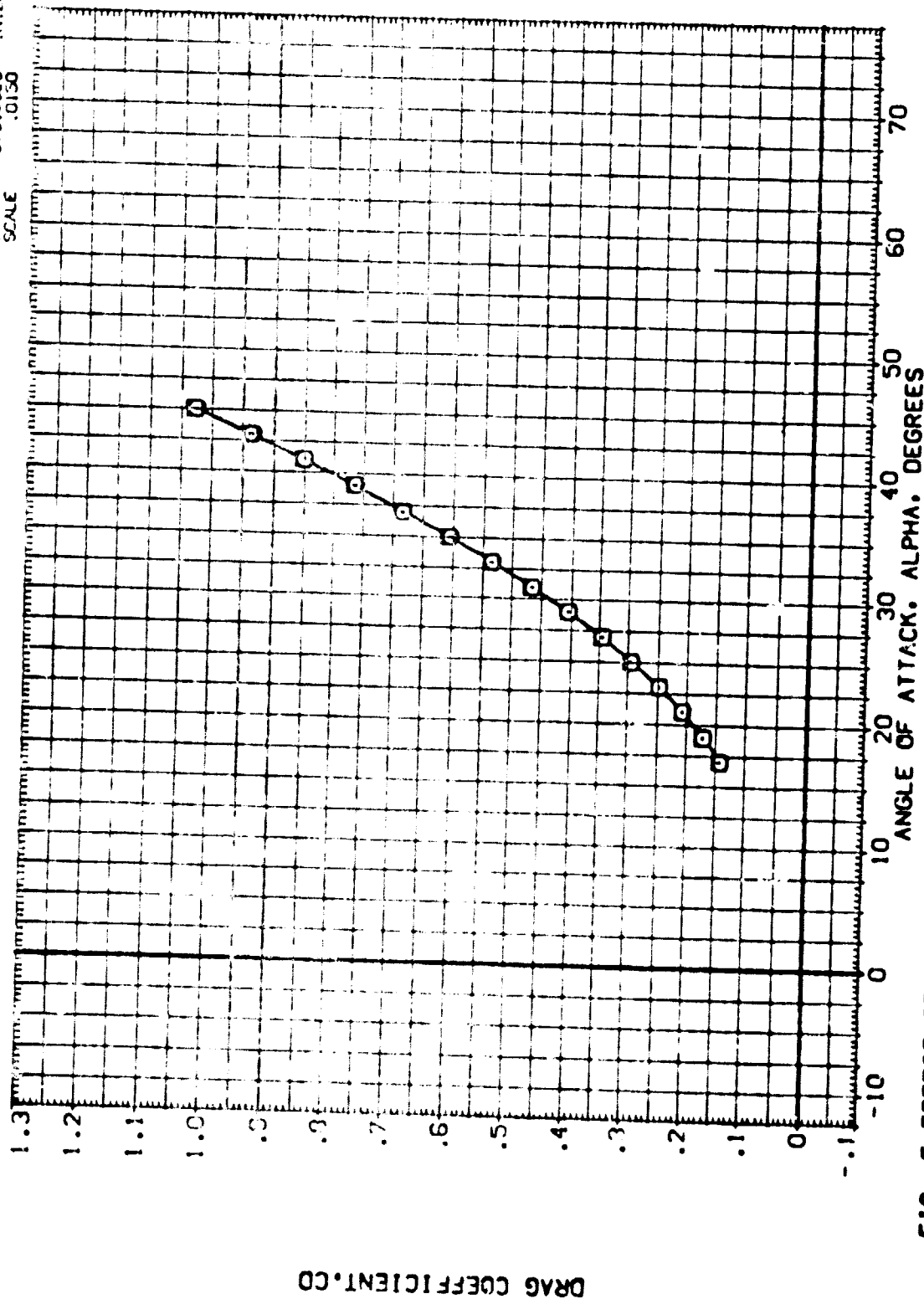


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00

DATA SET SYMBOL  
(H1W015)  
(H1W042)

EL-GAP  
1.000  
1.000

CONFIGURATION DESCRIPTION  
Q479 B26 C9 E43 F8 H16 N28 RS V8 V116  
Q479 B26 C9 E43 F8 H16 N28 RS V8 V116

SEALED GAP

SCALE  
.015C

REFERENCE INFORMATION  
SREF 2690.0000 50.0000  
LREF 479.8100 IN.  
BREF 936.6800 IN.  
YREF 1076.6800 IN.  
YREF 375.0000 IN.  
ZREF 375.0000 IN.  
SCALE .015C

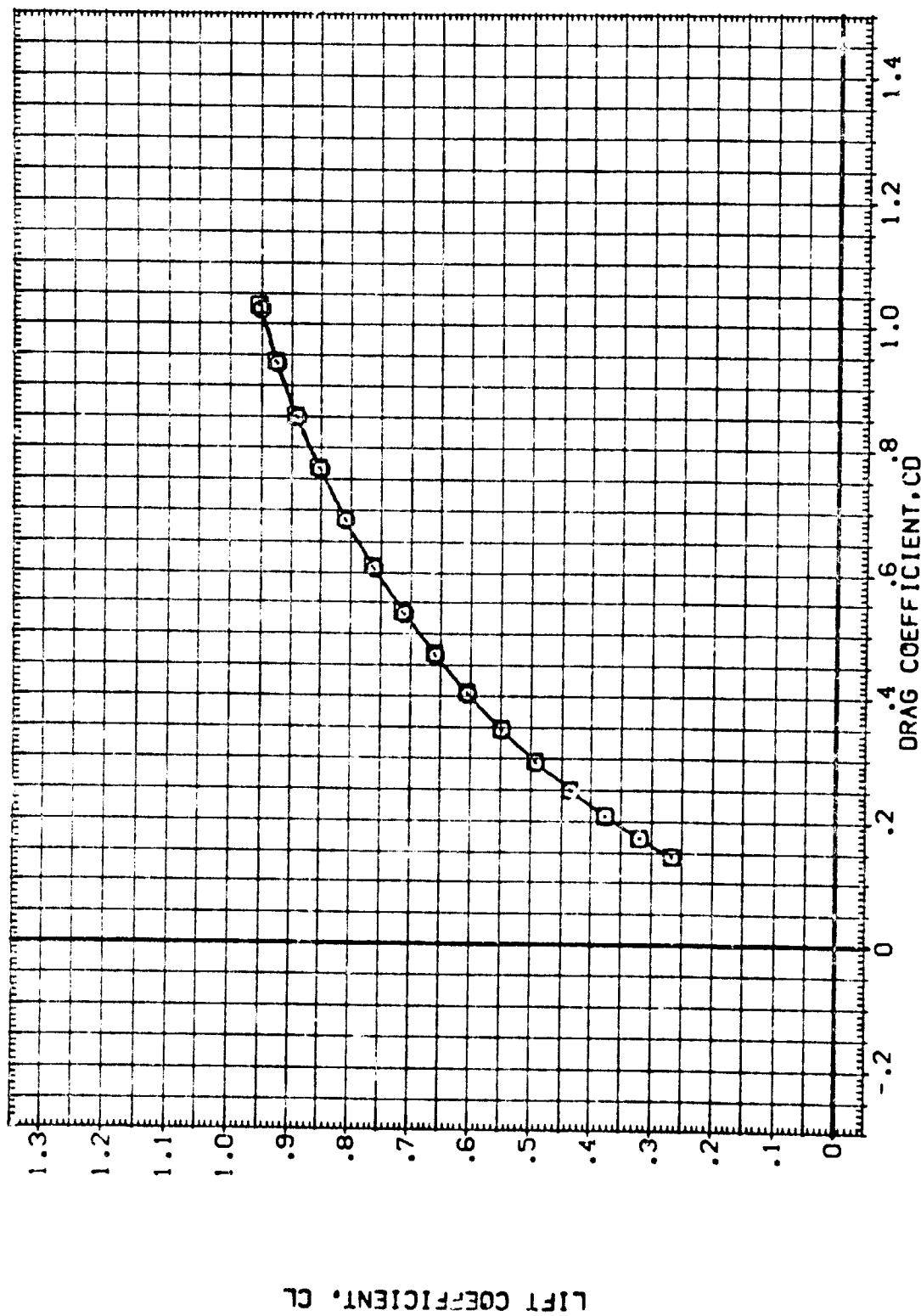



FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00

DATA SET SYMBOL: (HTV015) (HTV042)  CONFIGURATION DESCRIPTION: 0A79 B26 C3 E43 F8 H16 N28 RS V8 V116 SEALED GAP EL-GAP 1.000 .000

REFERENCE INFORMATION:  
 SCALE: 2650.0000 IN.  
 LREF: 474.8100 IN.  
 BREF: 936.6800 IN.  
 XREF: 1076.8800 IN.  
 YREF: .0000 IN.  
 ZREF: 375.0000 IN.  
 SCALE: .0150

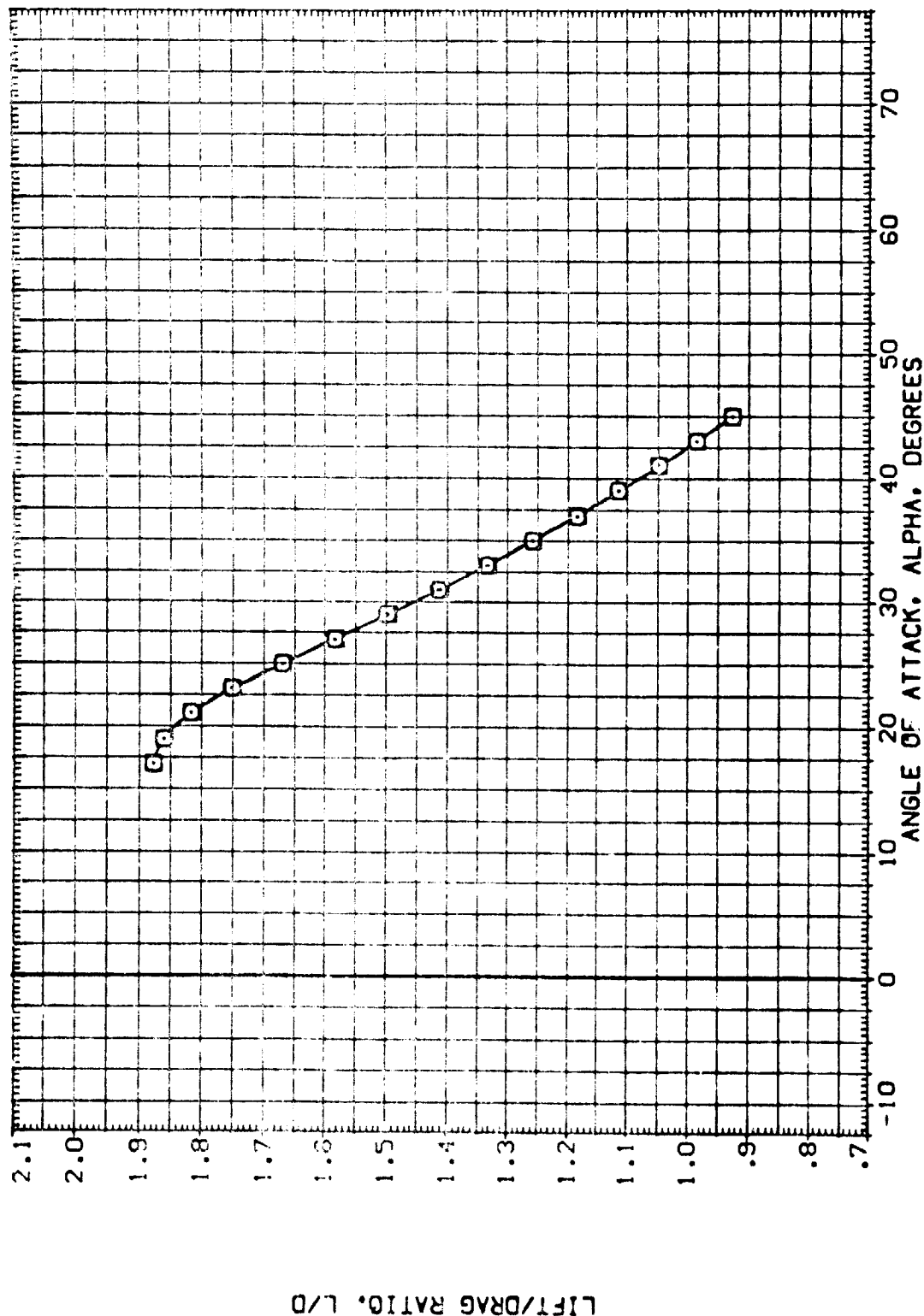


FIG. 5 EFFECT OF SEALING ELEVON GAP

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV025)	0A79 B26 C9 E13 F8 H16 N28 R5 V3 V116	-10,000	-40,000	-40,000	-40,000	CREF 2050.0000 SQ.FT.
(CTV046)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	-30,000	-30,000	-40,000	-40,000	LREF 474.8100 IN.
(CTV015)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	-20,000	-20,000	-20,000	-20,000	BREF 936.6900 IN.
(CTV023)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	-10,000	-10,000	-10,000	-10,000	XREF 1076.6900 IN.
(CTV001)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	-10,000	-10,000	-10,000	-10,000	YREF 375.0000 IN.
						ZREF 0150
						SCALE

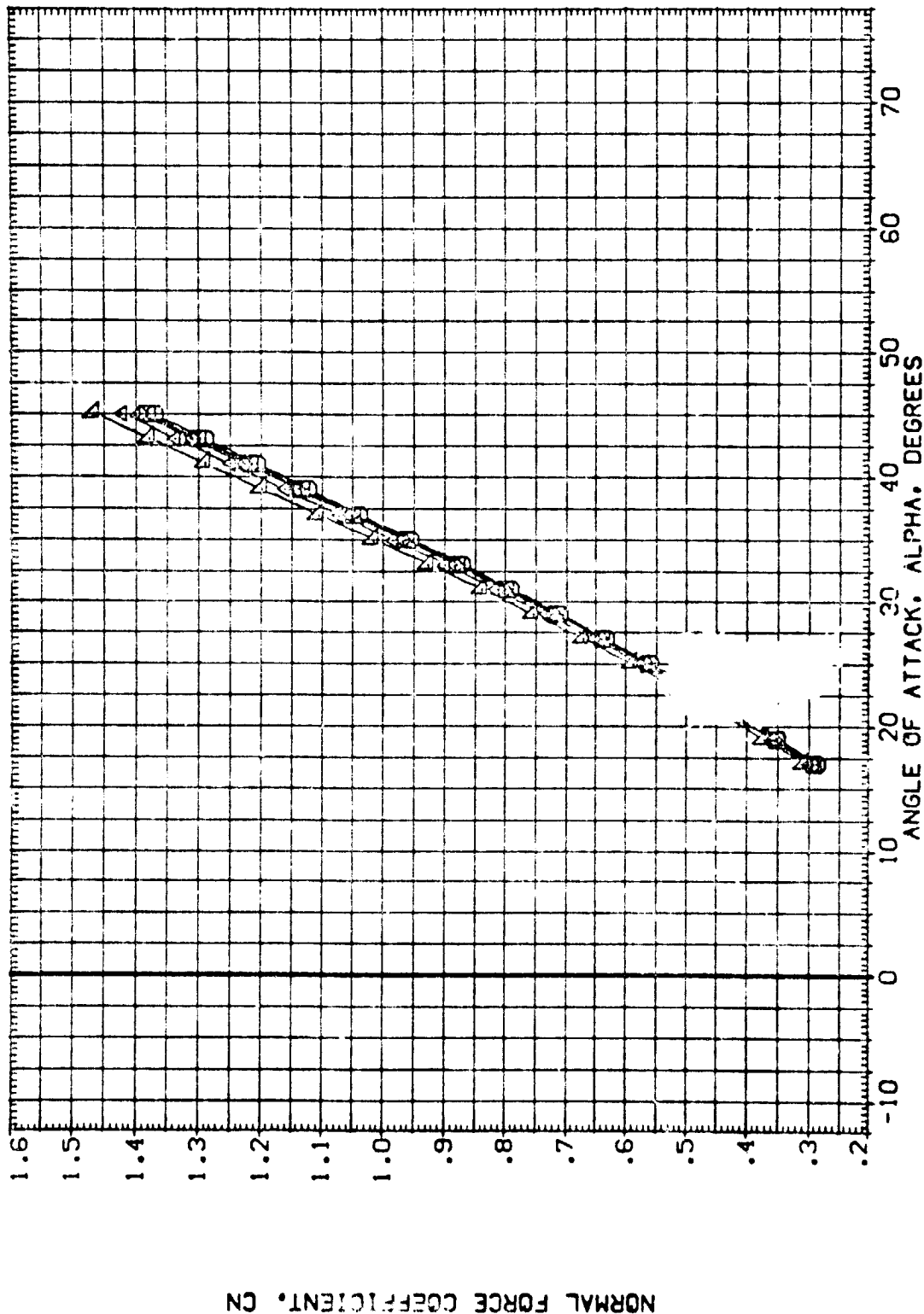


FIG. 6 FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH(FORWARD C. G.) CL(MPD)

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (C1V025) OA/9 B26 C9 E43 F8 H16 N28 RS V8 VII6  
 (C1V046) OA/9 B26 C9 E43 F8 H16 N28 RS V8 VII6  
 (C1V019) OA/9 B26 C9 E43 F8 H16 N28 RS V8 VII6  
 (C1V023) OA/9 B26 C9 E43 F8 H16 N28 RS V8 VII6  
 (C1V001) OA/9 B26 C9 E43 F8 H16 N28 RS V8 VII6

ELV-L0 ELV-L1 ELV-R1 ELV-R0 REFERENCE INFORMATION  
 -10.000 -10.000 -10.000 -10.000 DEF 550.000 24 FT.  
 -30.000 -30.000 -30.000 -30.000 DEF 474.000 IN.  
 -20.000 -20.000 -20.000 -20.000 DEF 436.000 IN.  
 -10.000 -10.000 -10.000 -10.000 DEF 1078.000 IN.  
 .000 .000 .000 .000 DEF 975.000 IN.  
 SCALE .0150

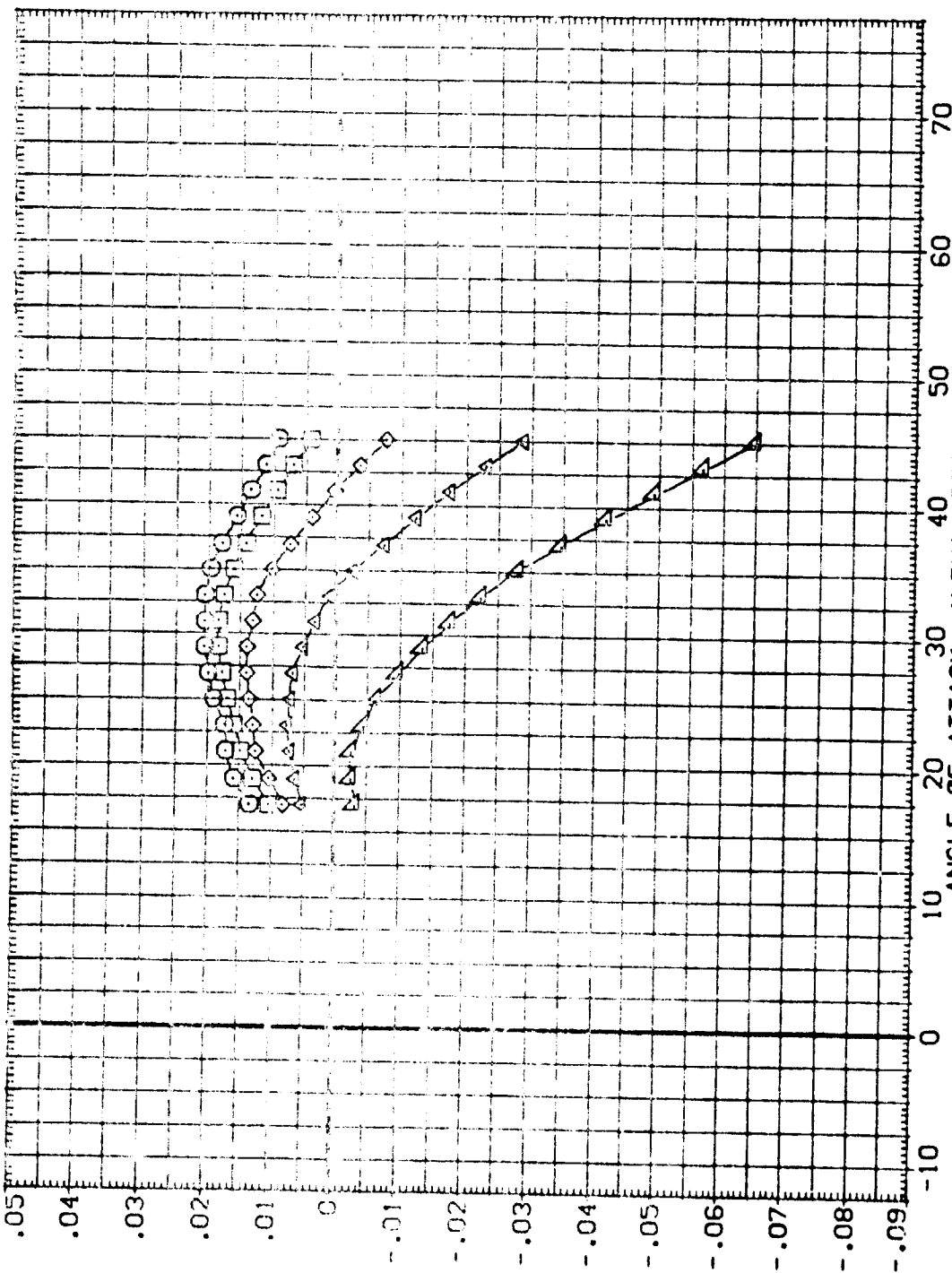


FIG. 6 FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)

(MACH = 8.00)

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH (AFT C. G.)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V025)	0A79 B26 C9 E43 F8 M 6 N28 R5 V8 V116	-40.000	-40.000	-40.000	-40.000	SREF 2690.0000 SQ.FT.
(C1V046)	0A79 B26 C9 E43 F8 M 6 N28 R5 V8 V116	-30.000	-30.000	-30.000	-30.000	LREF 474.8100 IN.
(C1V015)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-20.000	-20.000	-20.000	-20.000	SREF 936.6800 IN.
(C1V023)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-10.000	-10.000	-10.000	-10.000	XREF .076.0000 IN.X0
(C1V001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	YREF 375.0000 IN.Y0
						ZREF .0150
						SCALE

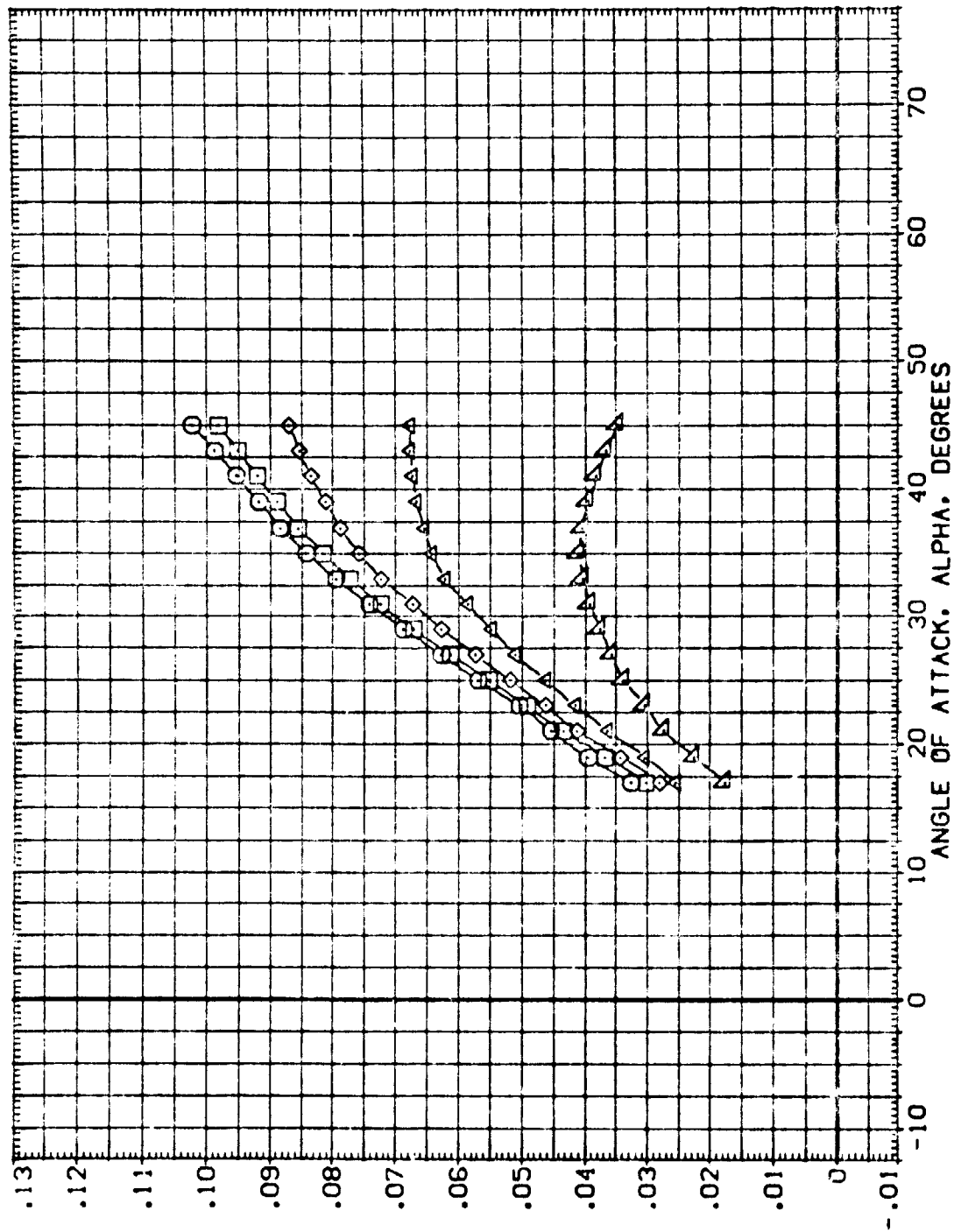


FIG. 6 FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)

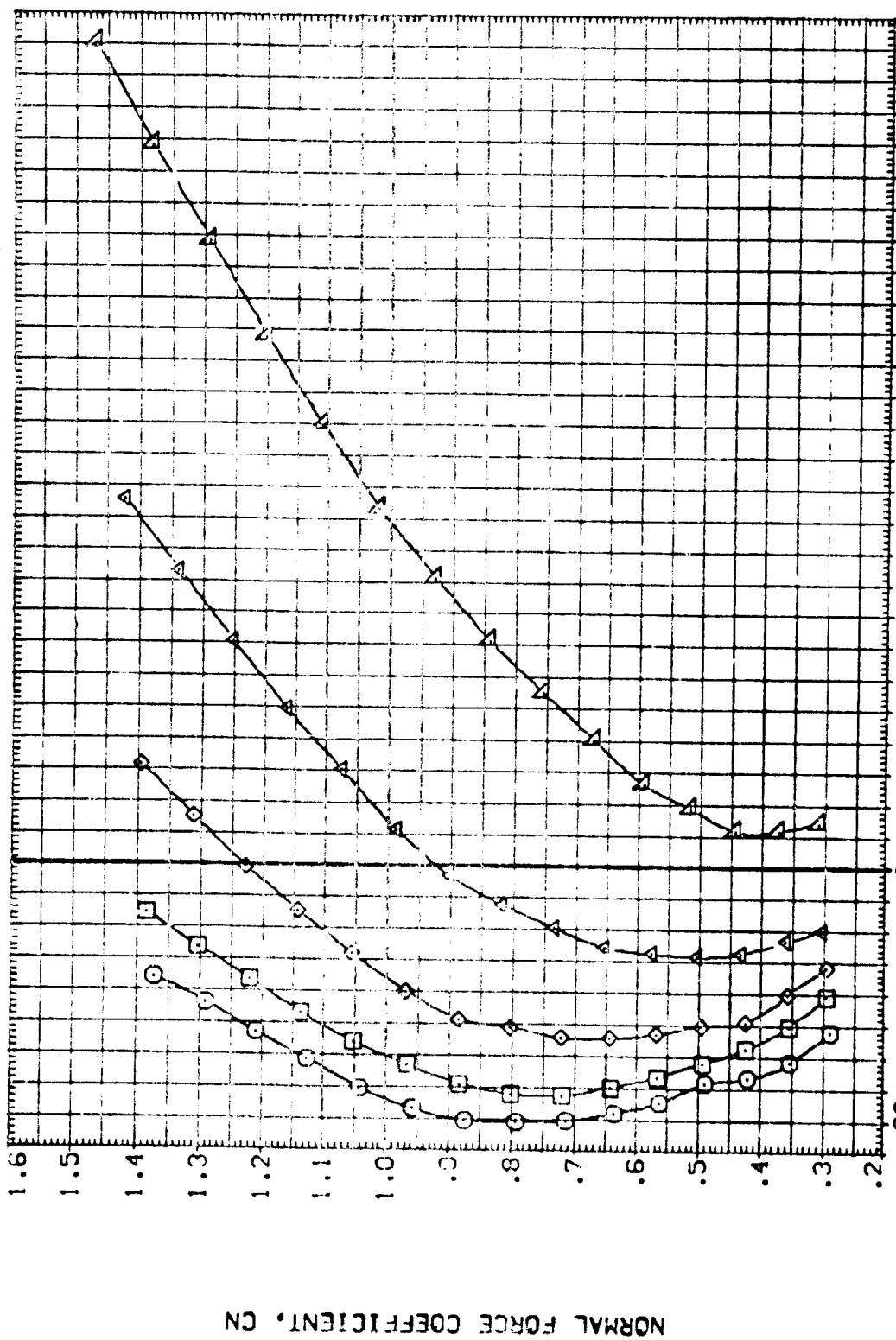
(A)MACH = 8.00



DATA SET 50780L CONFIGURATION DESCRIPTION

CONF	REF	ELV-R0	ELV-R1	ELV-L1	ELV-L0	CONF	REF	ELV-R0	ELV-R1	ELV-L1	ELV-L0
CTV025	474.8100	-40.000	-40.000	-40.000	-40.000	CTV025	474.8100	-40.000	-40.000	-40.000	-40.000
CTV046	935.6300	-30.000	-30.000	-30.000	-30.000	CTV046	935.6300	-30.000	-30.000	-30.000	-30.000
CTV015	1075.0000	-20.000	-20.000	-20.000	-20.000	CTV015	1075.0000	-20.000	-20.000	-20.000	-20.000
CTV023	375.0000	-10.000	-10.000	-10.000	-10.000	CTV023	375.0000	-10.000	-10.000	-10.000	-10.000
CTV001	0.0000	0.000	0.000	0.000	0.000	CTV001	0.0000	0.000	0.000	0.000	0.000

SCALE 0.150



PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C. G.) CLMFWD  
 FIG. 6 FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)  
 (A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	SAFE	2000.0000	CO.FT.
(CTV0001)	CA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-40.000	-40.000	-40.000	-40.000	UREF	174.8100	IN.
(CTV0015)	CA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-20.000	-20.000	-20.000	-20.000	BREF	938.8900	IN.
(CTV0033)	CA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-10.000	-10.000	-10.000	-10.000	XREF	1076.0000	IN.
(CTV0011)	CA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	ZREF	375.0000	IN.
						SCALE	.0150	IN.

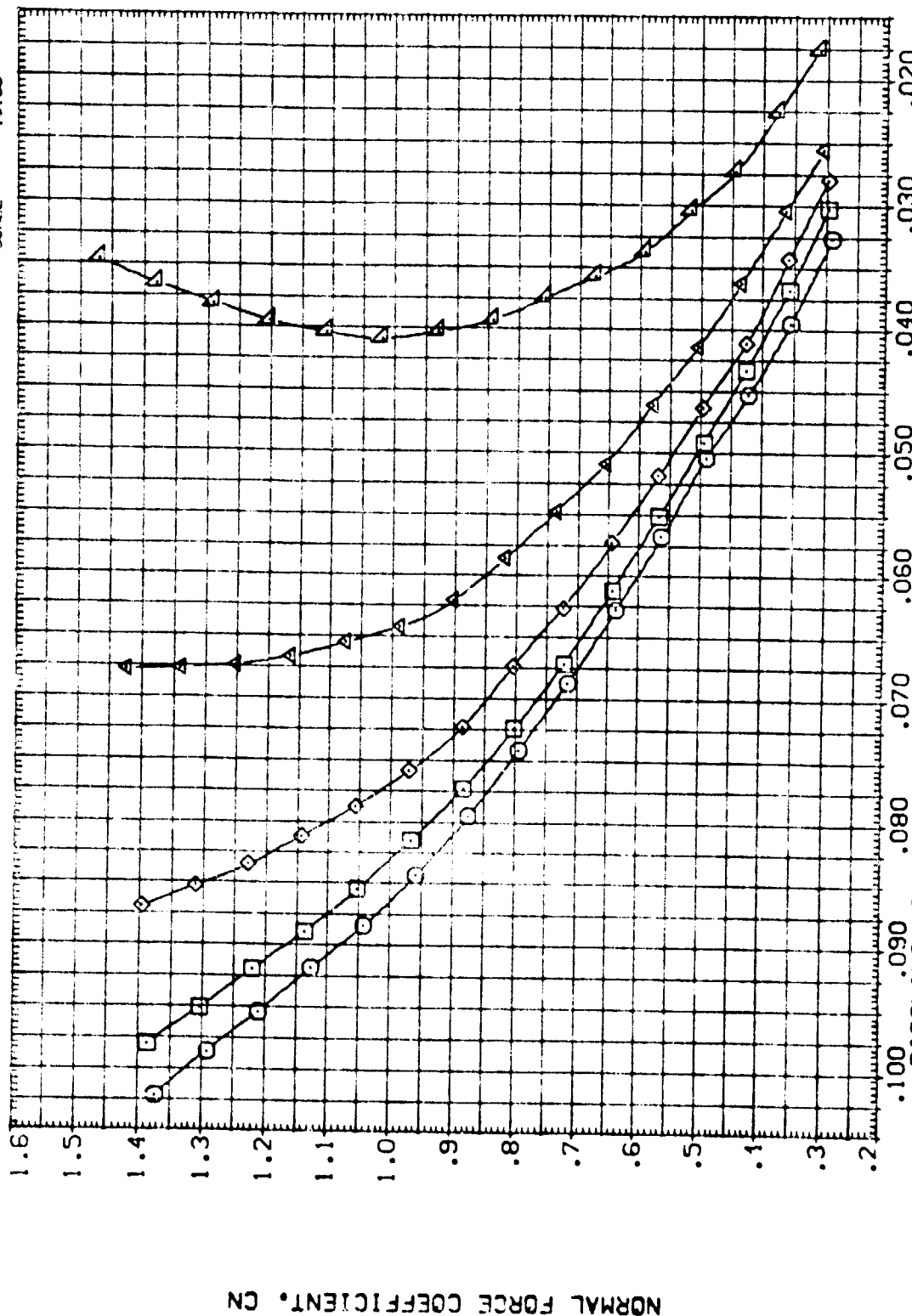
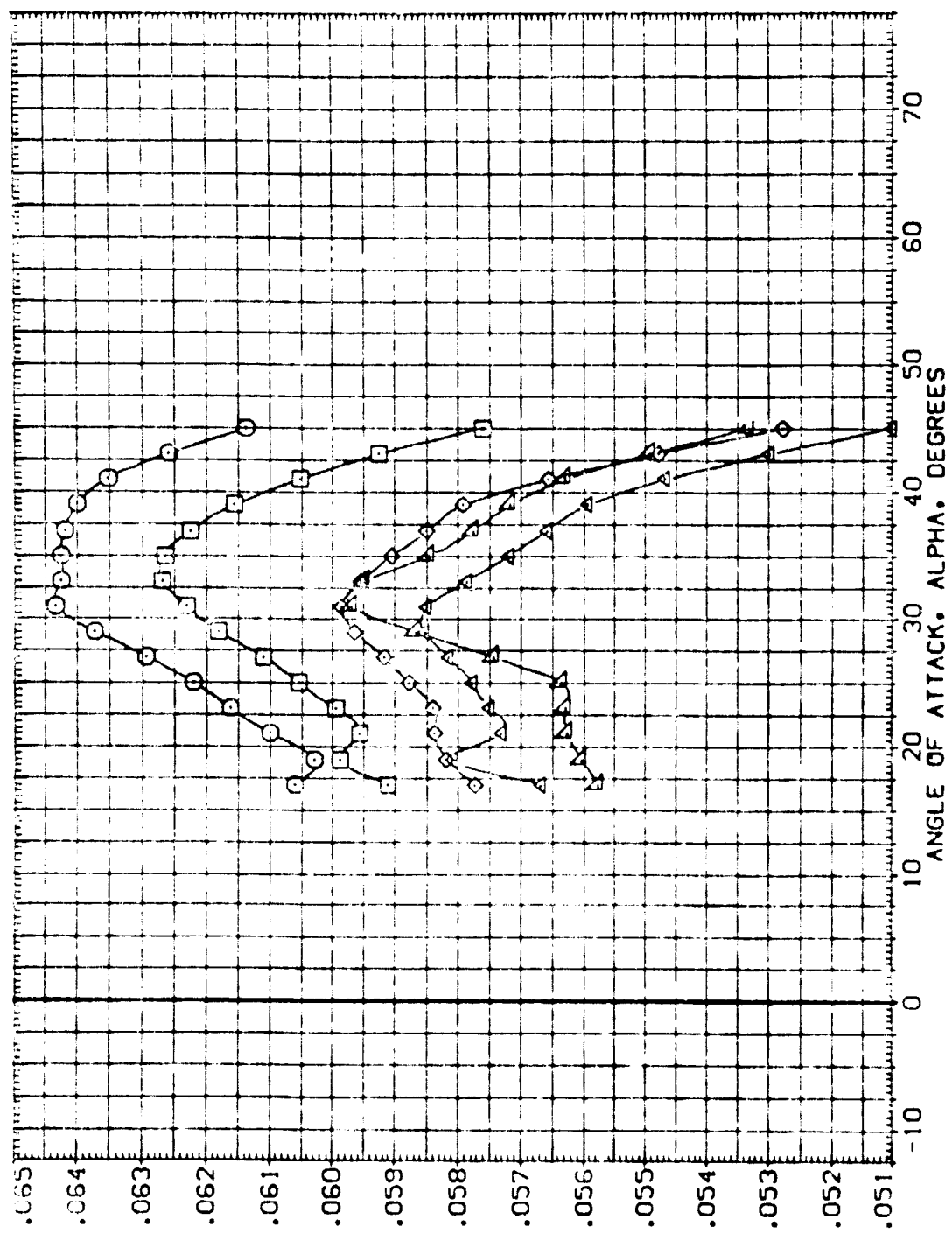


FIG. 6 FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)

(A)MACH = 8.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V025)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116	-40.000	-40.000	-40.000	-40.000	SREF 2690.0000 50.000
(C1V015)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116	-30.000	-30.000	-30.000	-30.000	UREF 474.8100 IN.
(C1V015)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116	-20.000	-20.000	-20.000	-20.000	BREF 536.6800 IN.
(C1V023)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116	-10.000	-10.000	-10.000	-10.000	XREF 1078.5600 IN.X0
(C1V001)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116	.000	.000	.000	.000	YREF 375.0000 IN.Y0
						SCALE .0150



AXIAL FORCE COEFFICIENT, CA

FIG. 6 FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)

(A)MACH = 8.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V075)	0A79 006 C9 E43 F8 M16 N28 RS V8 V116	-40.000	-40.000	-10.000	-40.000	SREF 2690.0000 50. FT.
(C1V046)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	-30.000	-30.000	-30.000	-30.000	LREF 474.8100 IN.
(C1V015)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	-20.000	-20.000	-20.000	-20.000	BREF 936.6900 IN.
(C1V223)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	-10.000	-10.000	-10.000	-10.000	XREF 1076.6900 IN. V8
(C1V001)	0A79 506 C9 E43 F8 M16 N28 RS V8 V116	.000	.000	.000	.000	YREF 375.0000 IN. V8
						ZREF .0150
						SCALE

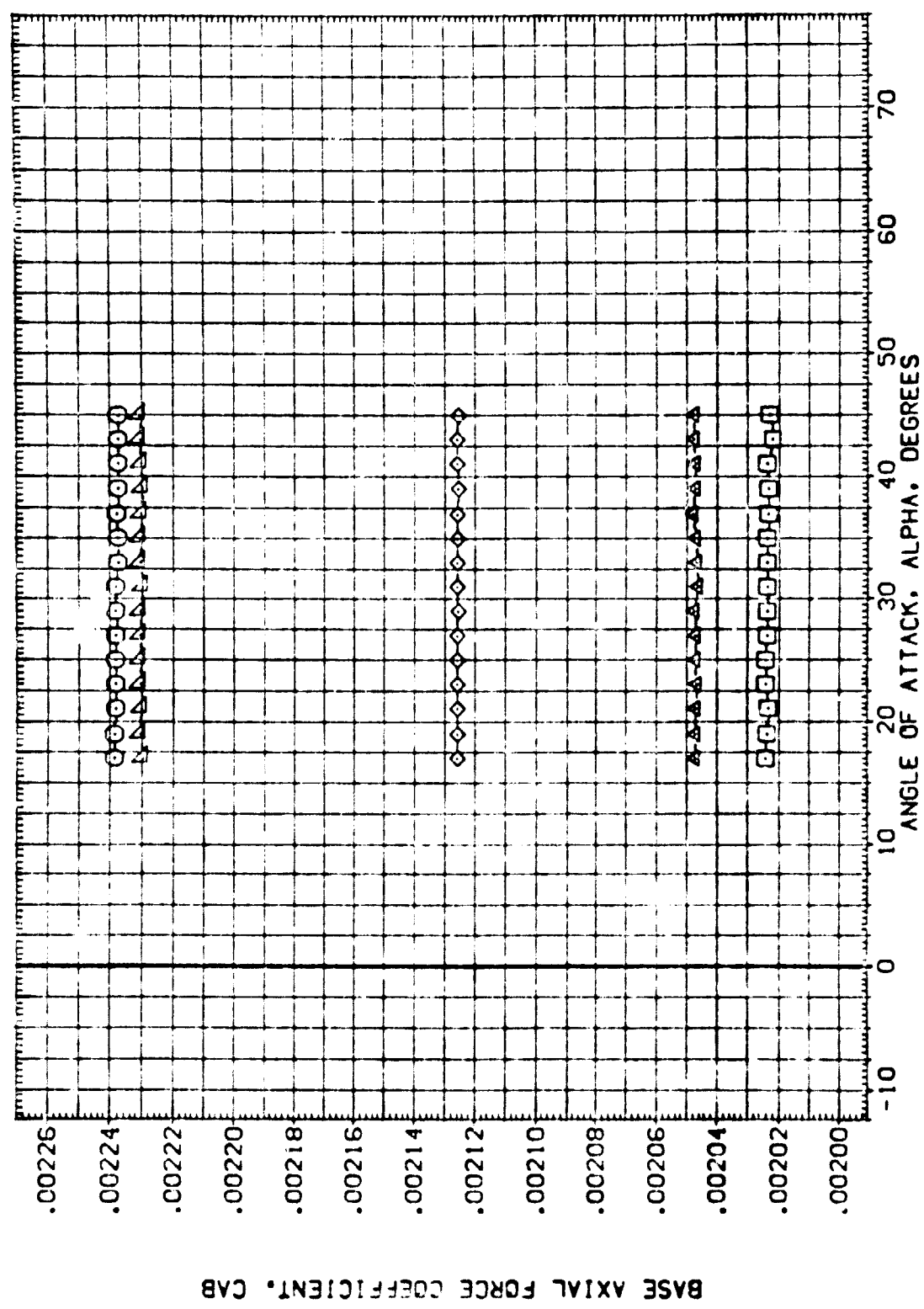


FIG. 6 FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)

(A)MACH = 8.00

DATA SET 5 NO. 1. COORDINATION DESCRIPTION

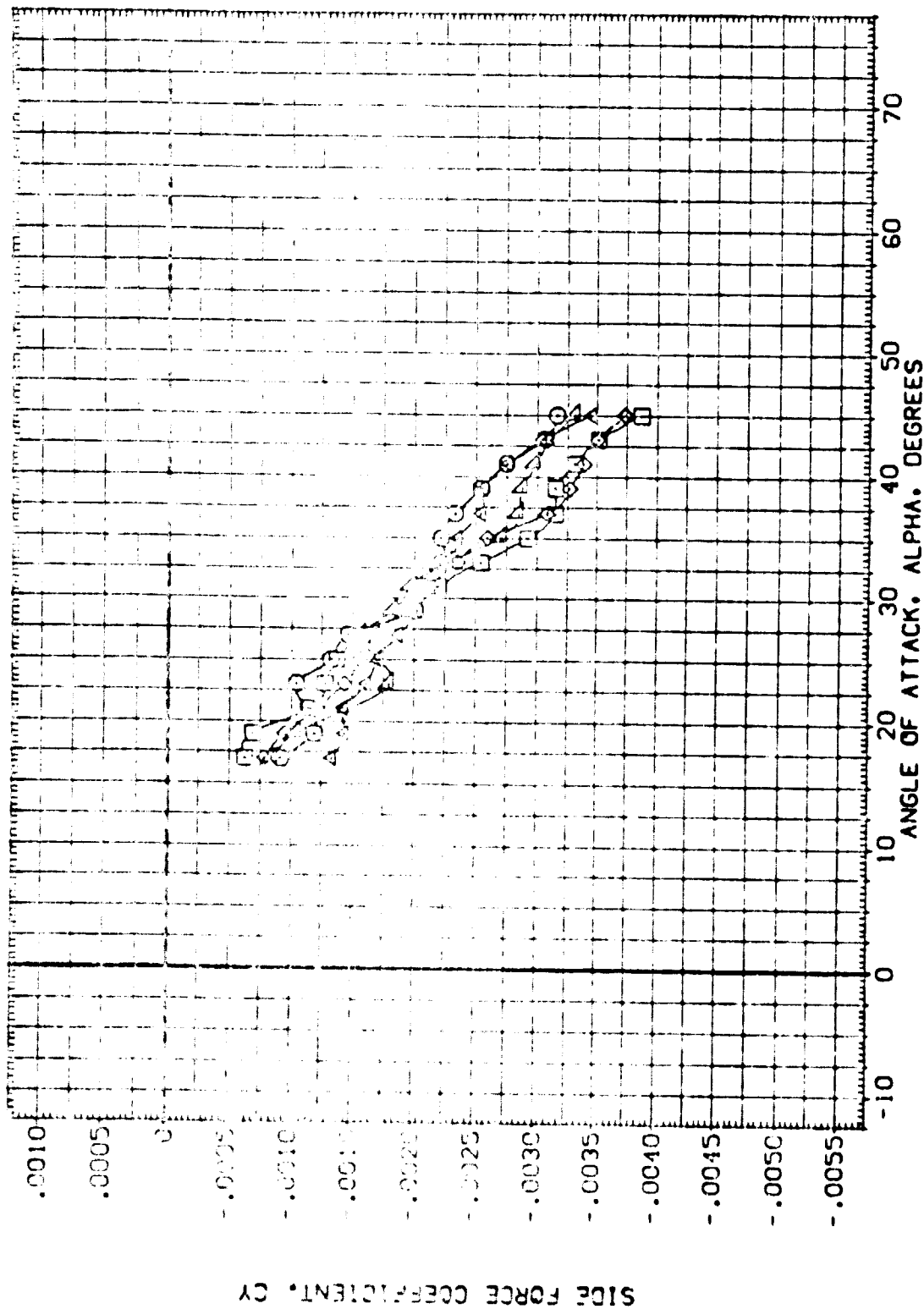
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SCALE

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-LO	ELV-LI	ELV-RI	ELV-RO	REFERENCE INFORMATION
CA19	W-5	40.000	-40.000	40.000	-40.000	SREF 4850.0000
CA19	W-6	30.000	-30.000	30.000	-30.000	LSREF 474.8100
CA19	W-7	20.000	-20.000	20.000	-20.000	SRREF 936.5800
CA19	W-8	10.000	-10.000	10.000	-10.000	ATREF 1076.3400
CA19	W-9	0.000	0.000	0.000	0.000	ATREF 375.0000
CA19	W-10	0.000	0.000	0.000	0.000	SCALE .0150

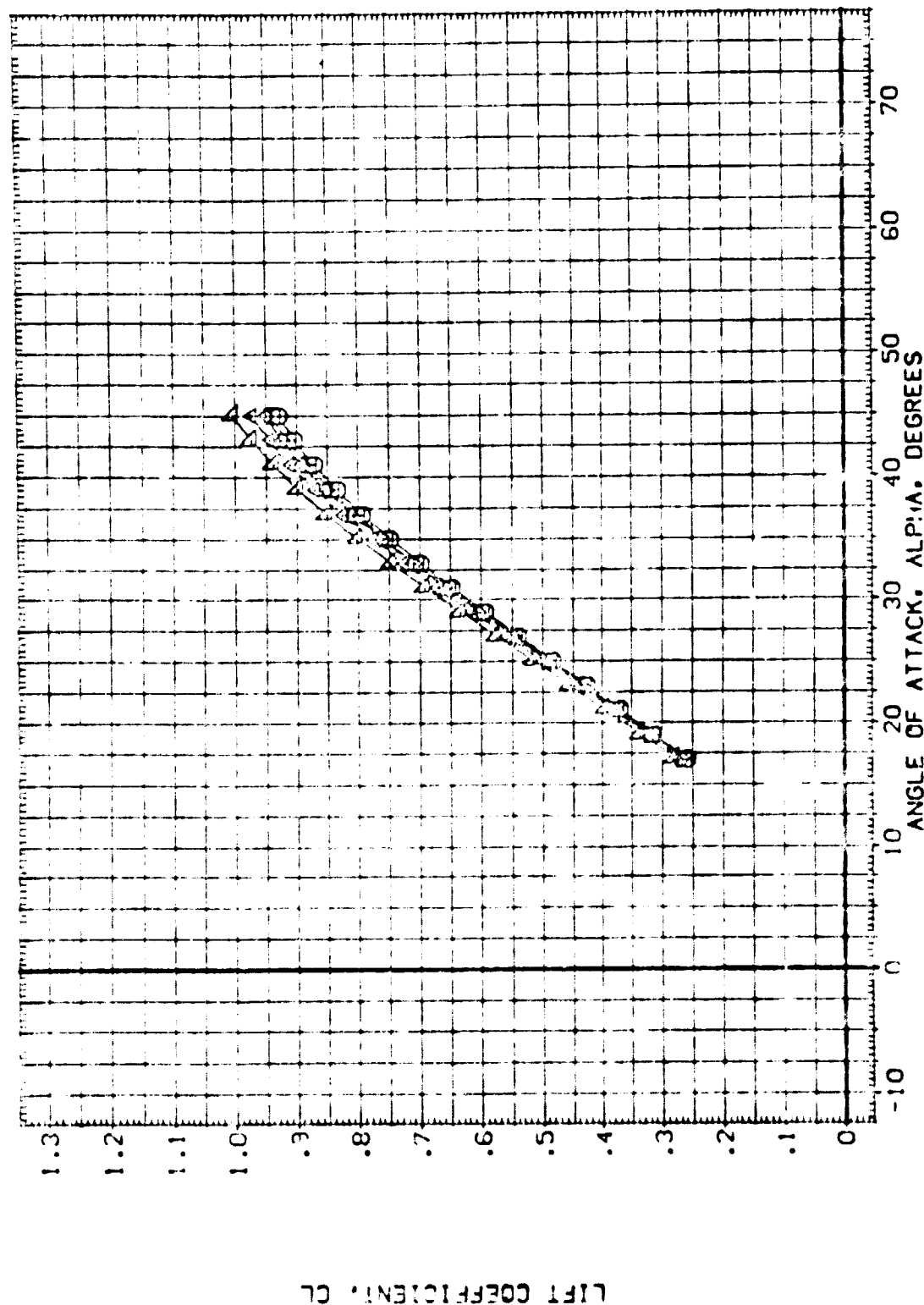


FIG. 6 FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)

(A)MACH = 8.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R2	REFERENCE INFORMATION
(AT023)	BA79 B26 C9 E43 F8 H16 N28 RS V8 V116	-10.000	-10.000	-10.000	-10.000	0.000
(AT010)	BA79 B26 C9 E43 F8 H16 N28 RS V8 V116	-10.000	-10.000	-10.000	-10.000	0.000
(AT015)	BA79 B26 C9 E43 F8 H16 N28 RS V8 V116	-10.000	-10.000	-10.000	-10.000	0.000
(AT023)	BA79 B26 C9 E43 F8 H16 N28 RS V8 V116	-10.000	-10.000	-10.000	-10.000	0.000
(AT001)	BA79 B26 C9 E43 F8 H16 N28 RS V8 V116	-10.000	-10.000	-10.000	-10.000	0.000

SCALE 10.000

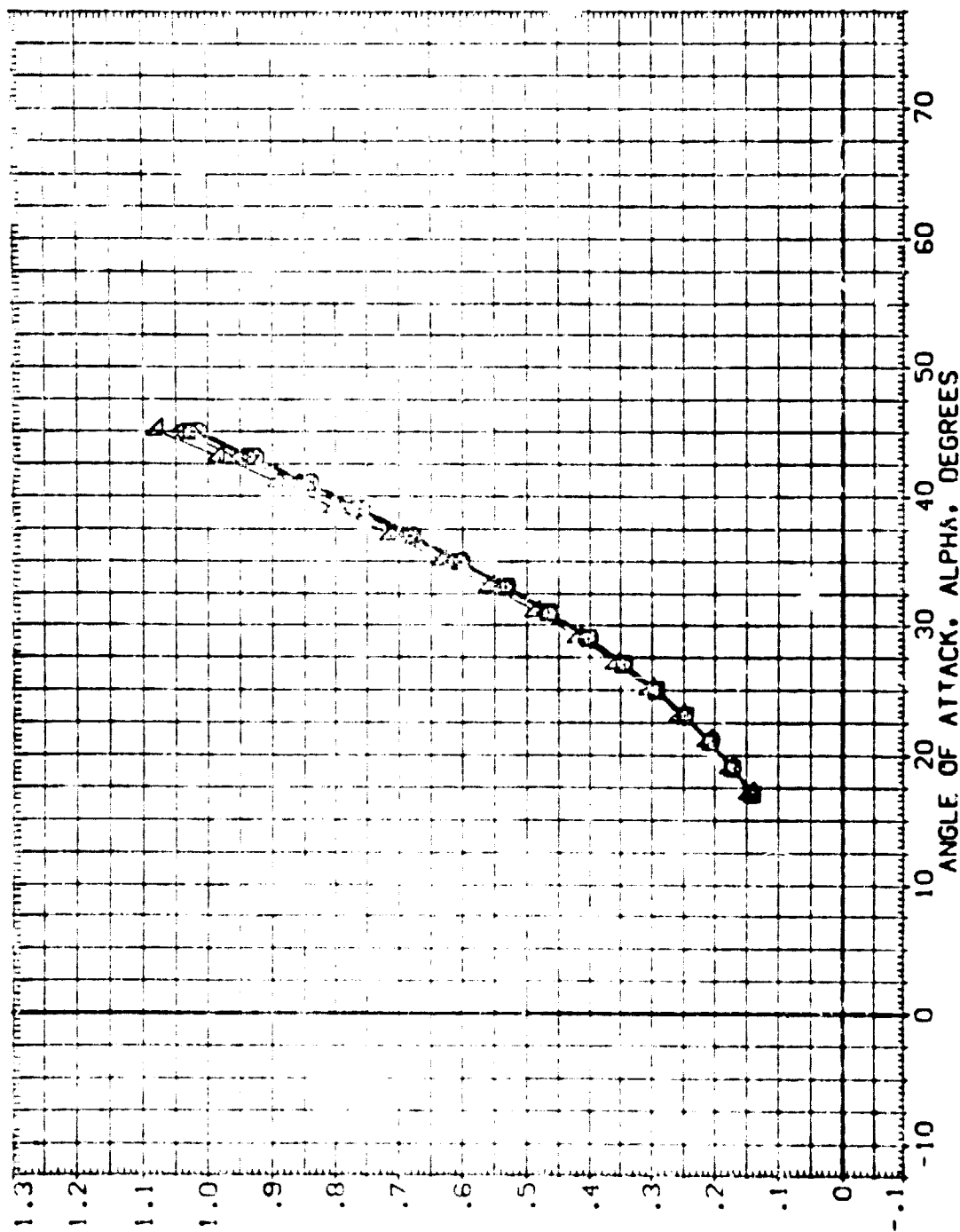


FIG. 6 FULL SPAN ELEVON EFFECTIVENESS (NEGATIVE DEFLECTIONS)

(A)MACH = 8.00





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V001)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	.000	.000	.000	.000	SWEF 2630.0000 SC.FT.
(C1V017)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	10.000	10.000	10.000	10.000	LREF 474.8100 IN.
(C1V020)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	20.000	20.000	20.000	20.000	BREF 536.6800 IN. X0
						YMRP 1076.0000 IN. Y0
						ZMRP 375.0000 IN. Z0
						SCALE .0150

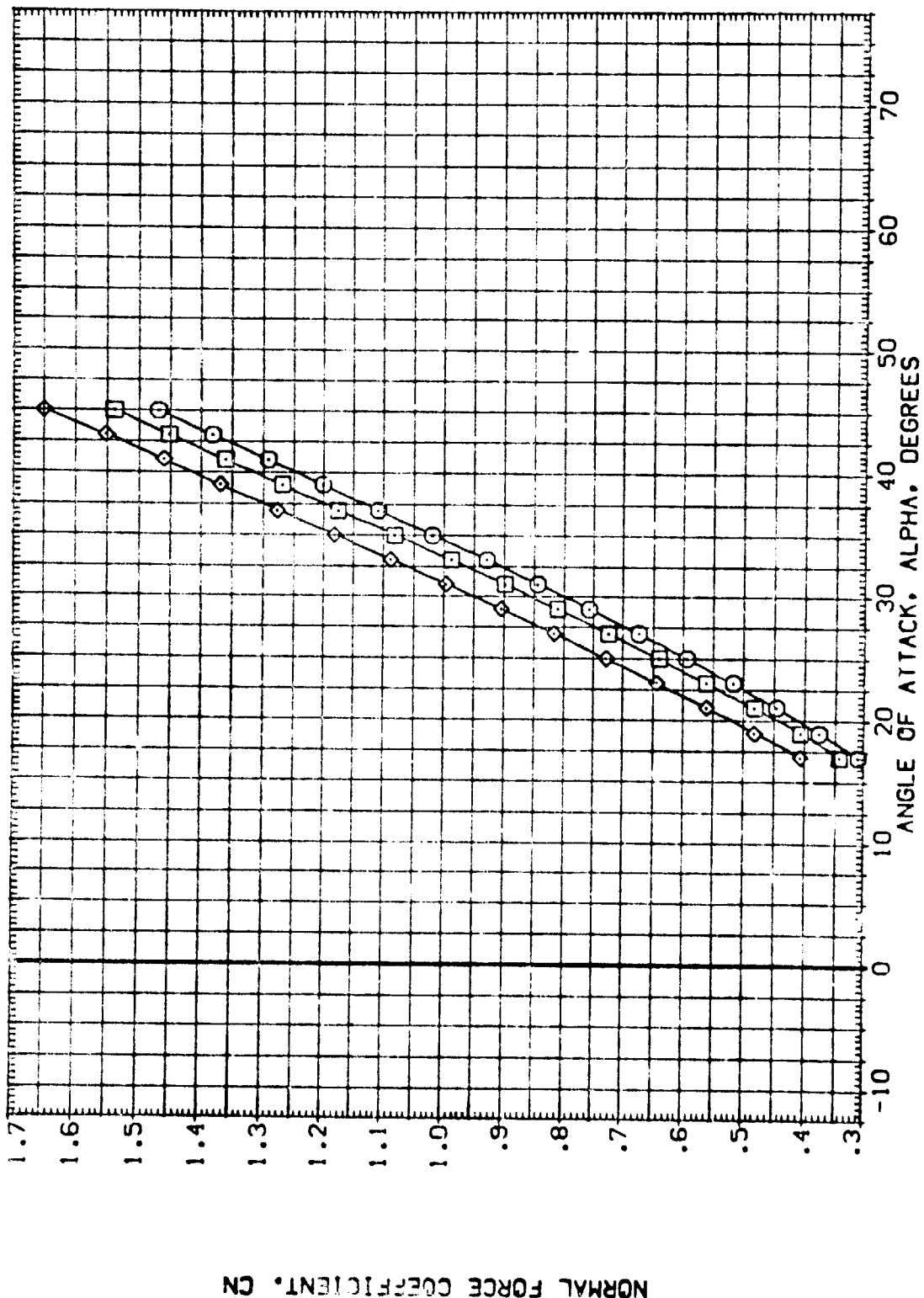


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(C1V001) 0 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

(C1V017) 0 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

(C1V020) 0 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

ELV-L0 ELV-L1 ELV-R1 ELV-R0

0.000 0.000 0.000 0.000

10.000 10.000 10.000 10.000

20.000 20.000 20.000 20.000

REFERENCE INFORMATION

BASE 4054.0000 IN.

LAFF 474.8100 IN.

BRF 936.1800 IN.

YPRP 1076.1800 IN.

YPRP 0.0000 IN.

ZPRP 375.0000 IN.

SCALE 0.0150

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH(FORWARD C. G.) CLMPWD

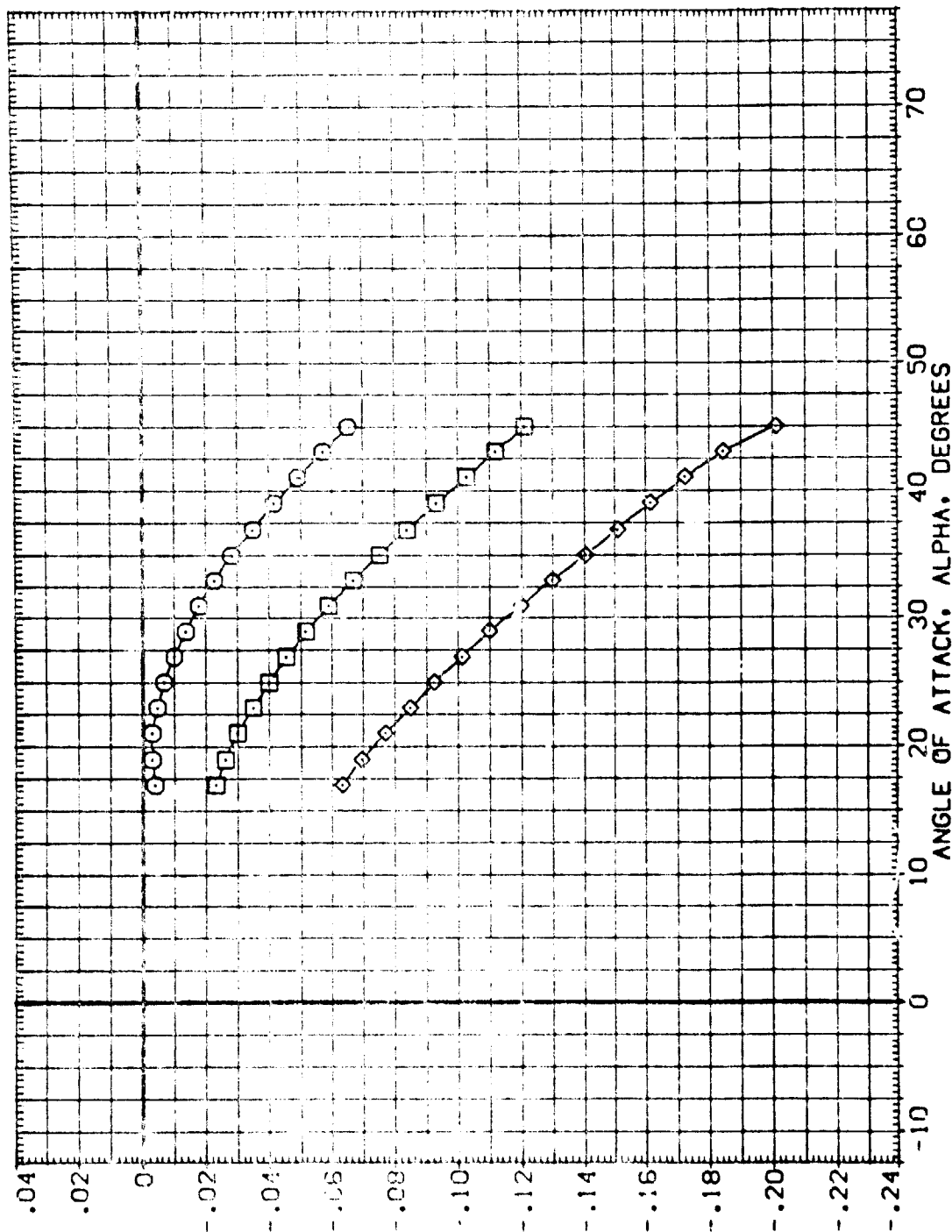


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V011)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	.000	.000	.000	REF 2650.0000 SQ.FT.
(C1V017)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	10.000	10.000	10.000	10.000	LREF 474.8100 IN.
(C1V020)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	20.000	20.000	20.000	20.000	BREF 936.6800 IN.
						XTRP 1076.6800 IN.X0
						YTRP .0000 IN.Y0
						ZTRP .0000 IN.Z0
						SCALE .0150

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH (AFT C. G.) CLMAYT

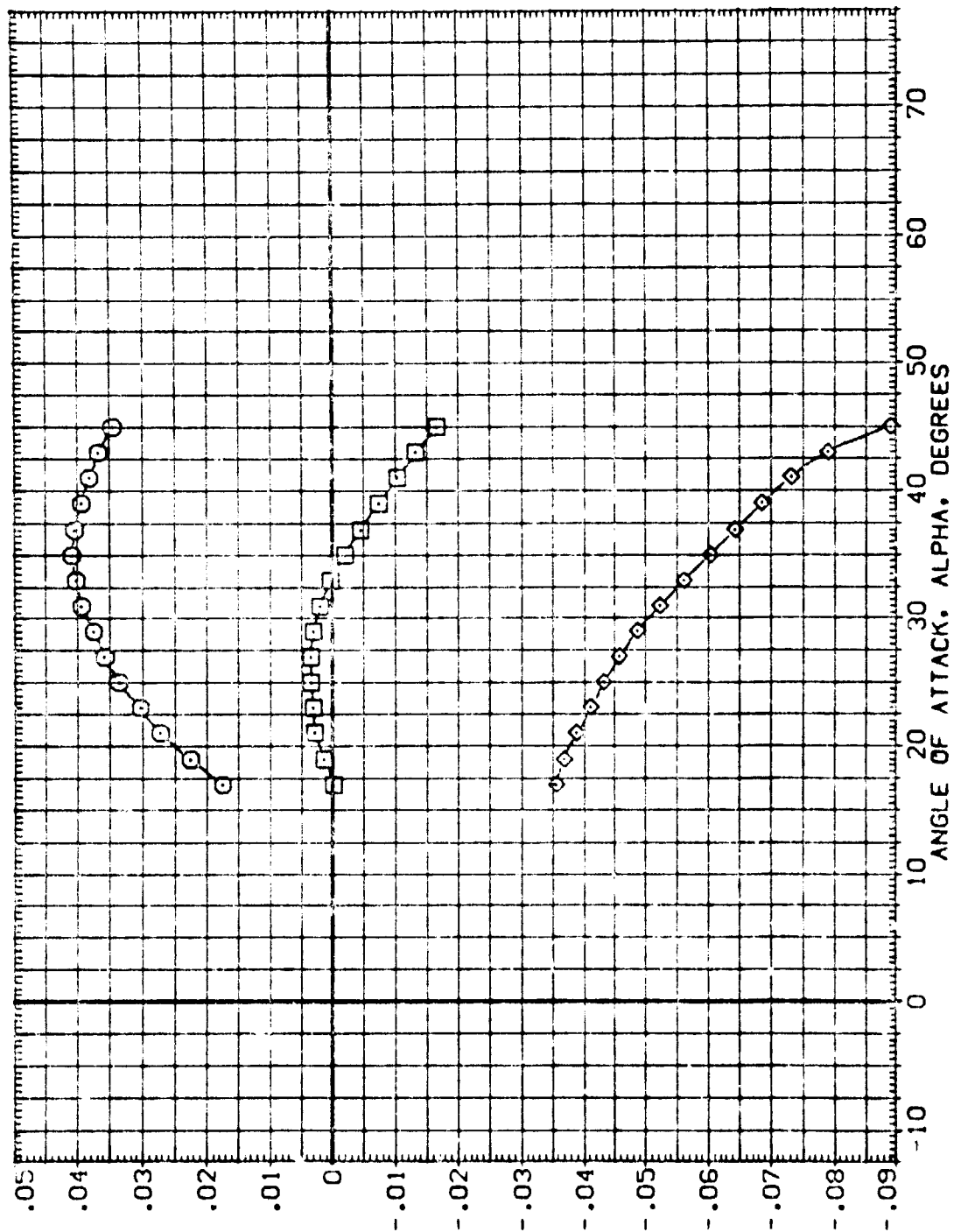


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    PLAN  
 (CTM001)    0A79 B76 C9 E43 F8 H16 N28 RS V8 V116  
 (CTM017)    0A79 B26 C9 E43 F8 H16 N28 RS V8 V116  
 (CTM020)    0A79 B26 C9 E43 F8 H16 N28 RS V8 V116

ELV-LC    CLV-LI    ELV-PI    SLV-PO    REFERENCE INFORMATION  
 000    000    000    000    CASE    2000 0000    0000    0000  
 10,000    10,000    10,000    10,000    LINEF    474 8100    1000    1000  
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 20,000    20,000    20,000    20,000    YREF    375 0000    1000    1000  
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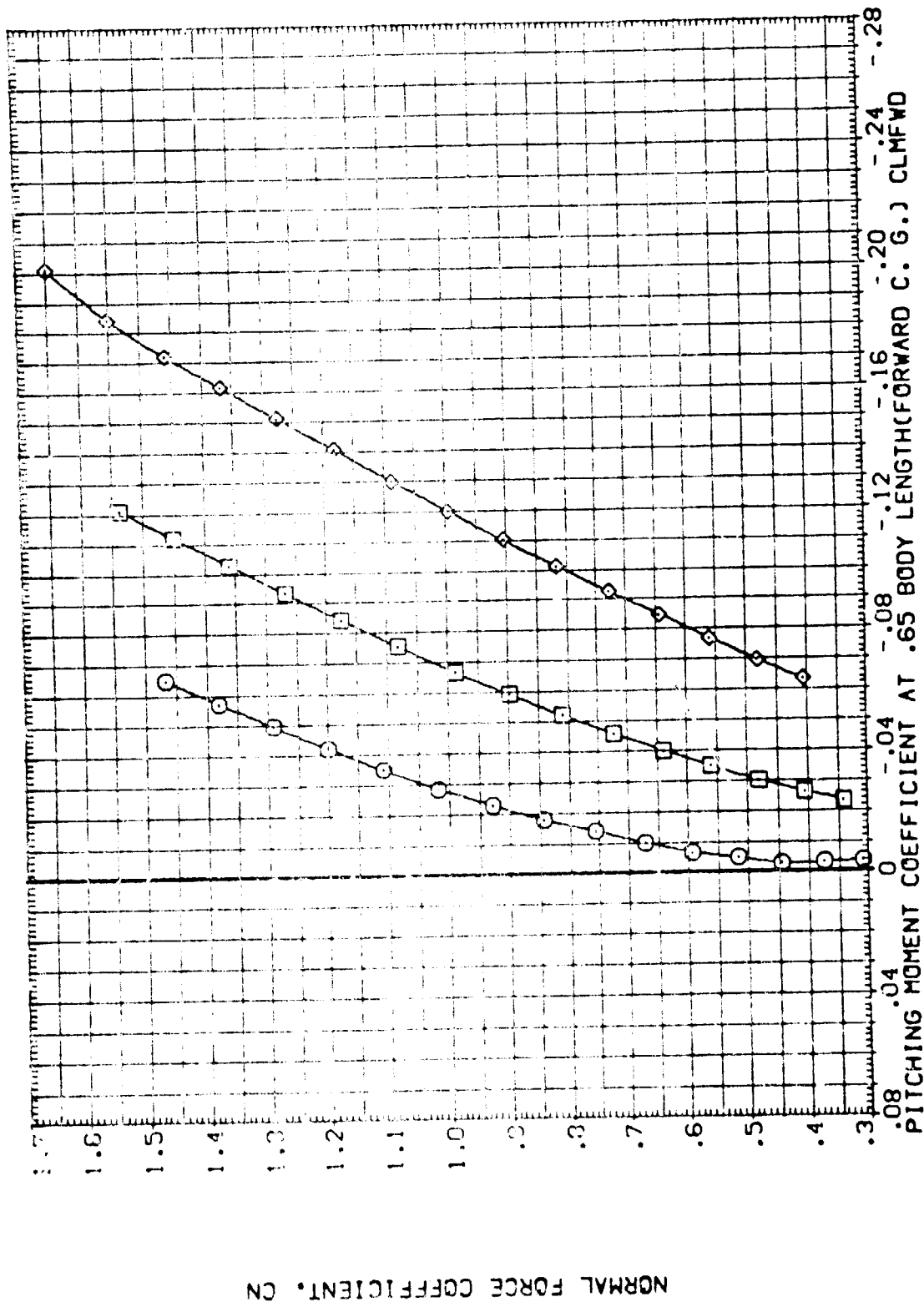


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(MACH = 8.00)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V001)	CA79 B26 C9 E43 F8 M16 N28 P5 V8 V116	.000	.000	.000	.000	SCALE 2690.0000 SO.FT.
(C1V017)	CA79 B26 C9 E43 F8 M16 N28 P5 V8 V116	10.000	10.000	10.000	10.000	LREF 474.8100 IN.
(C1V020)	CA79 B26 C9 E43 F8 M16 N28 P5 V8 V116	20.000	20.000	20.000	20.000	BREF 936.6400 IN.
						XREF 1076.6400 IN.
						YREF .0000 IN.
						ZREF 375.0000 IN.
						SCALE 375.0000

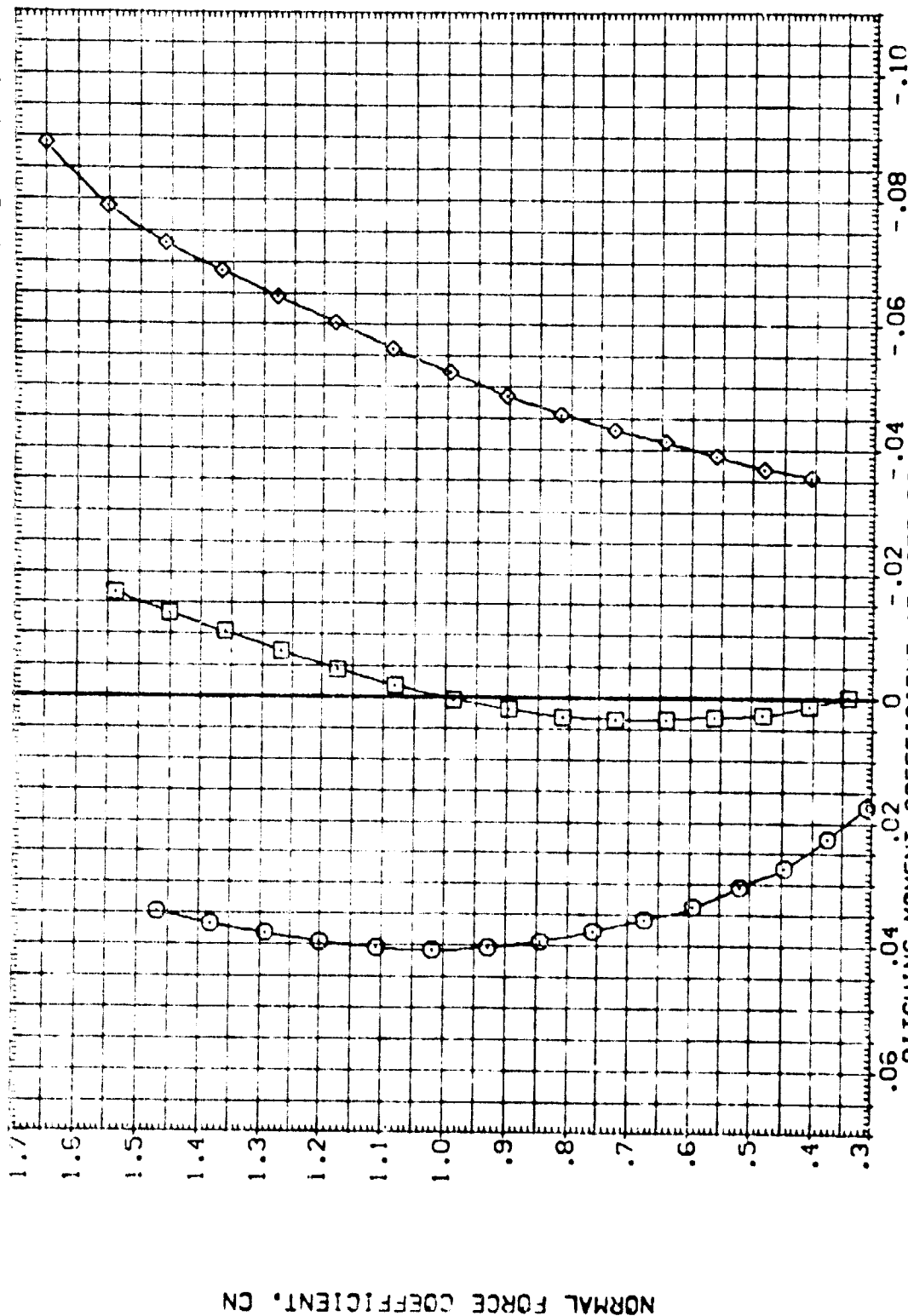


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00



CENTER OF PRESSURE LOCATION AS A FRACTION OF BODY LENGTH, XCP/L

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV001)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	.000	.000	.000	SRREF 2590.0000 59.17.
(CTV017)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	10.000	10.000	10.000	10.000	LRREF 474.8100 IN.
(CTV020)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	20.000	20.000	20.000	20.000	BRREF 936.6800 IN.
						XMRP 1076.8000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.0000 IN. Z0
						SCALE .0150

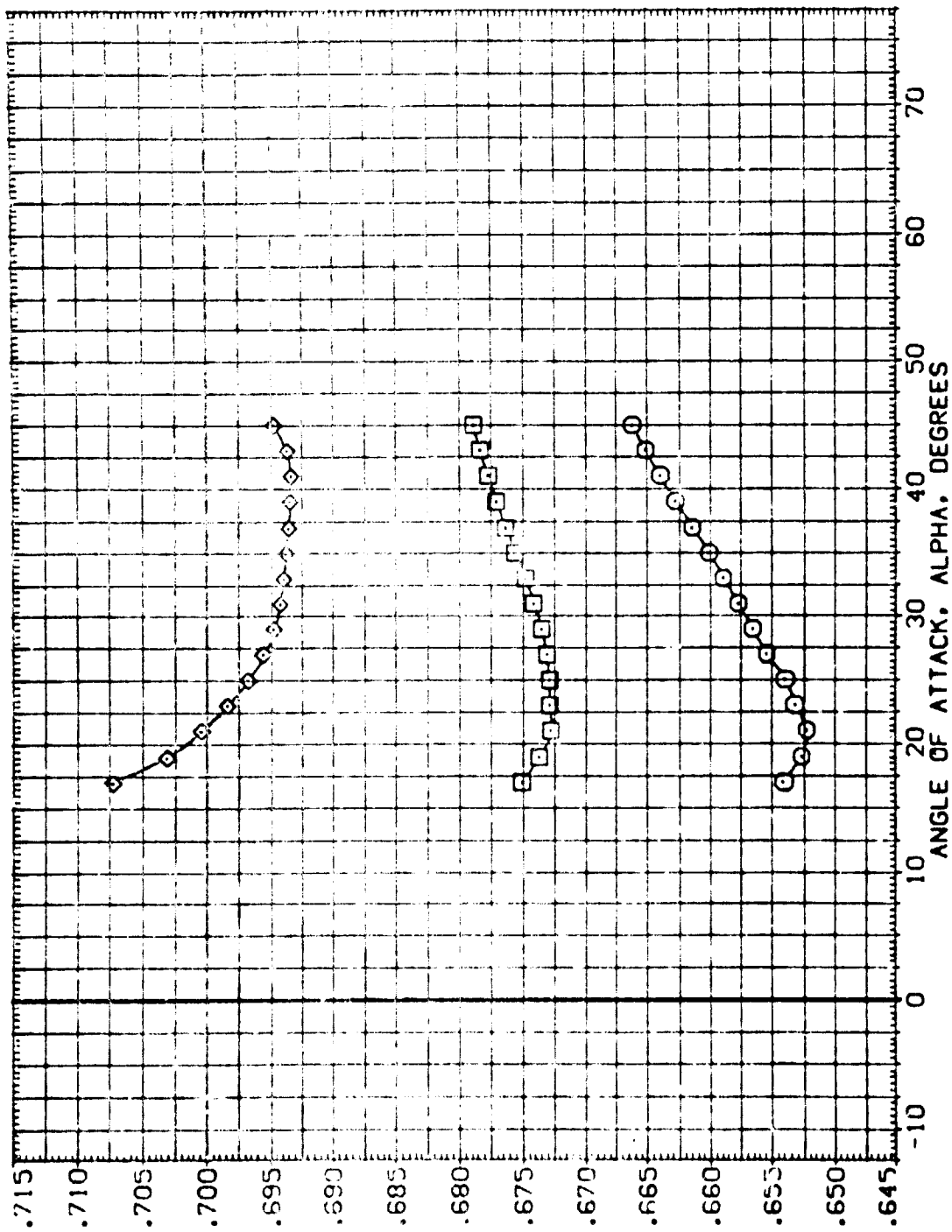


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	SREF 2690.0000 SQ.FT.
(CTV002)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	10.000	10.000	10.000	10.000	LREF 474.9100 IN.
(CTV003)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	20.000	20.000	20.000	20.000	BREF 936.6800 IN.
						XREF 1076.0000 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

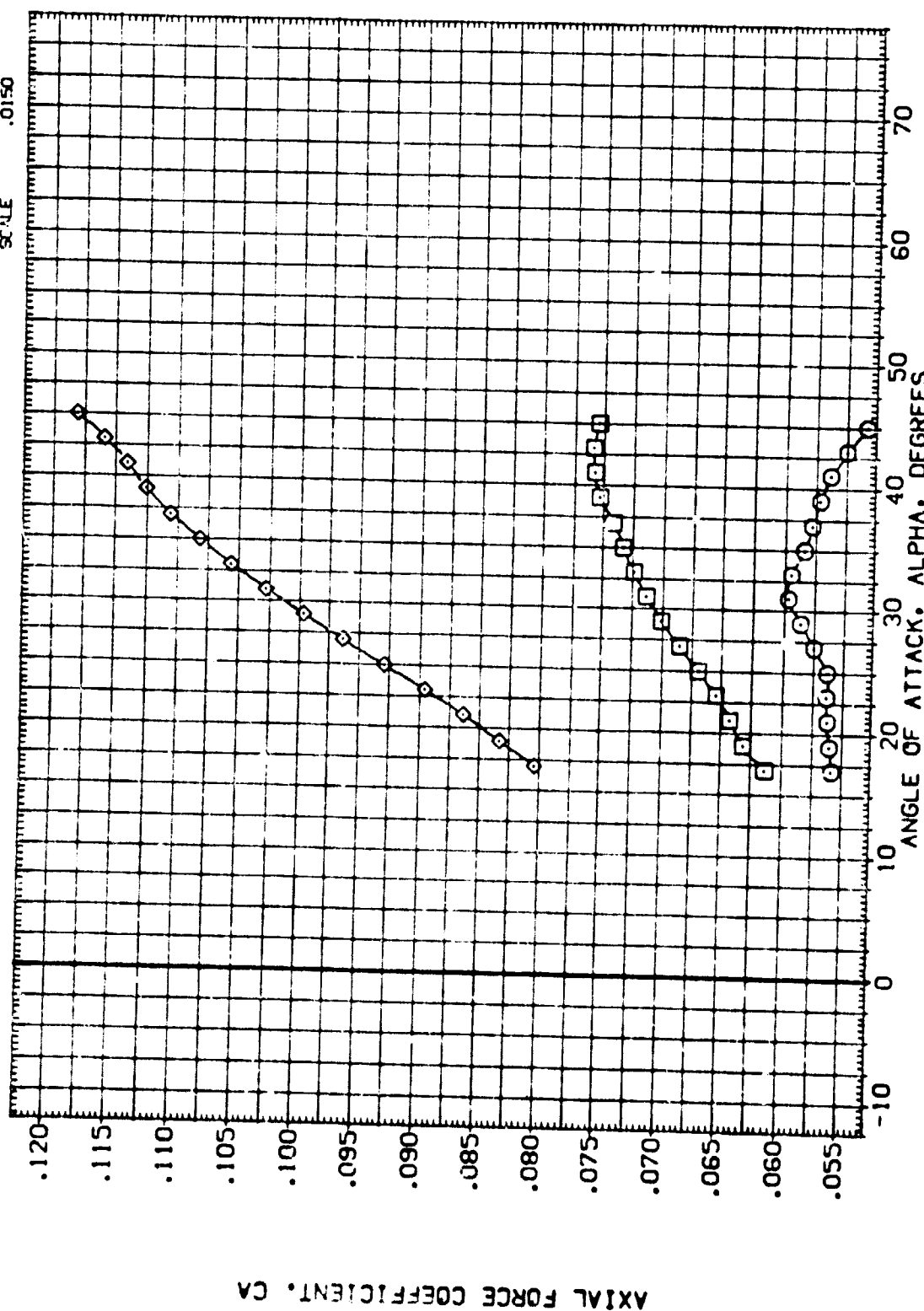


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1W001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	REF 450.000 IN.
(C1W017)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	LREF 471.8100 IN.
(C1W020)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	BREF 536.8300 IN.
		.000	.000	.000	.000	XREF 1076.6900 IN.
		.000	.000	.000	.000	YREF 1000 IN.
		.000	.000	.000	.000	ZREF 375.0000 IN.
		.000	.000	.000	.000	SCALE .0150

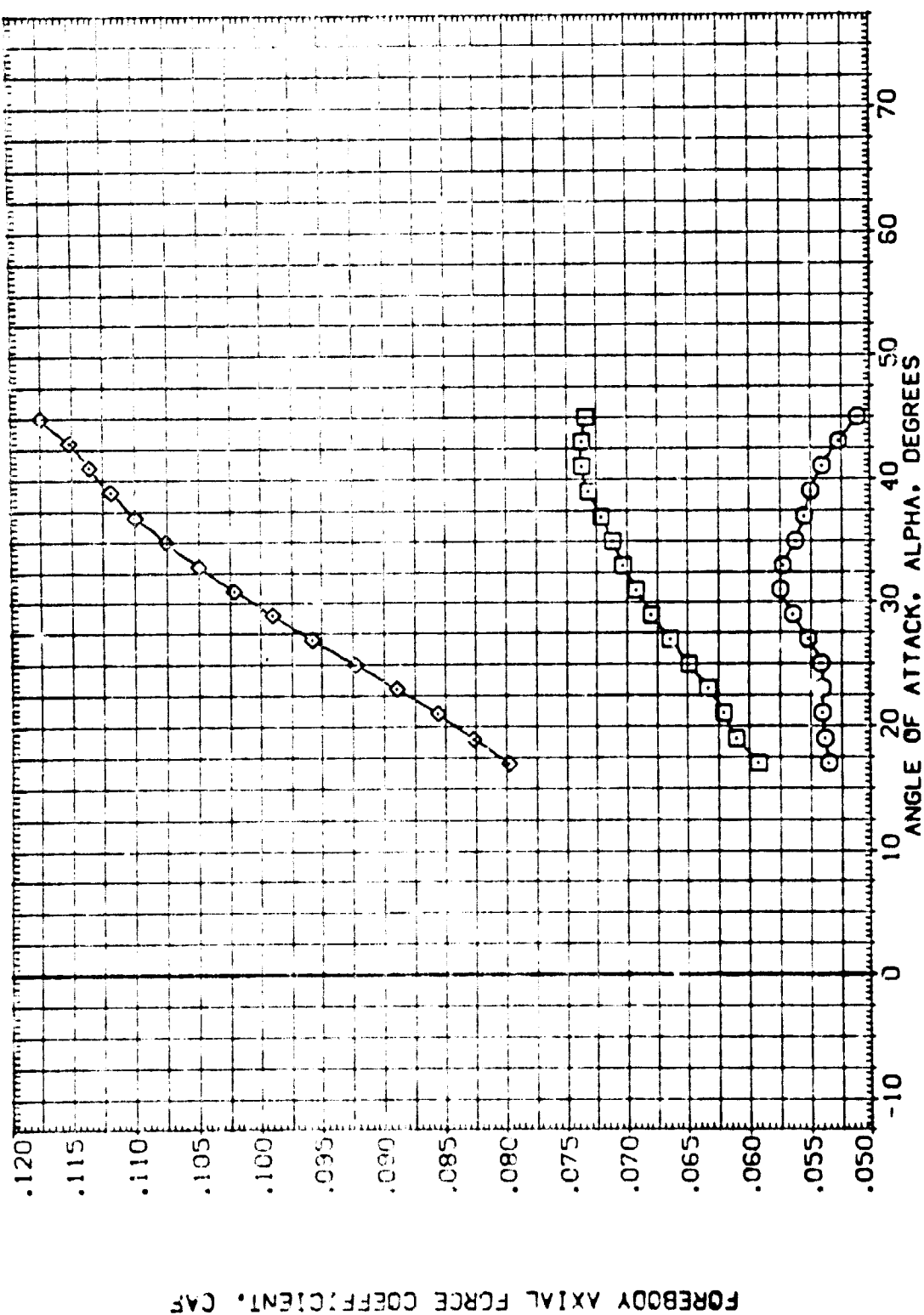


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CLV L0	ELV L1	ELV R1	ELV R0	REFERENCE INFORMATION
(C1W001)	0A79 B26 C9 E43 F8 M16 N28 R5 V3 V116	.000	.000	.000	.000	SREF 2690.0000 SQ.FT.
(C1W017)	0A79 B26 C9 E43 F8 M16 N28 R5 V3 V116	10.000	10.000	10.000	10.000	LREF 474.8100 IN.
(C1W020)	0A79 B26 C9 E43 F8 M16 N28 R5 V3 V116	20.000	20.000	20.000	20.000	BREF 936.6800 IN. X0
						YMRP 1076.6800 IN. Y0
						ZMRP .0000 IN. Z0
						SCALE .0150

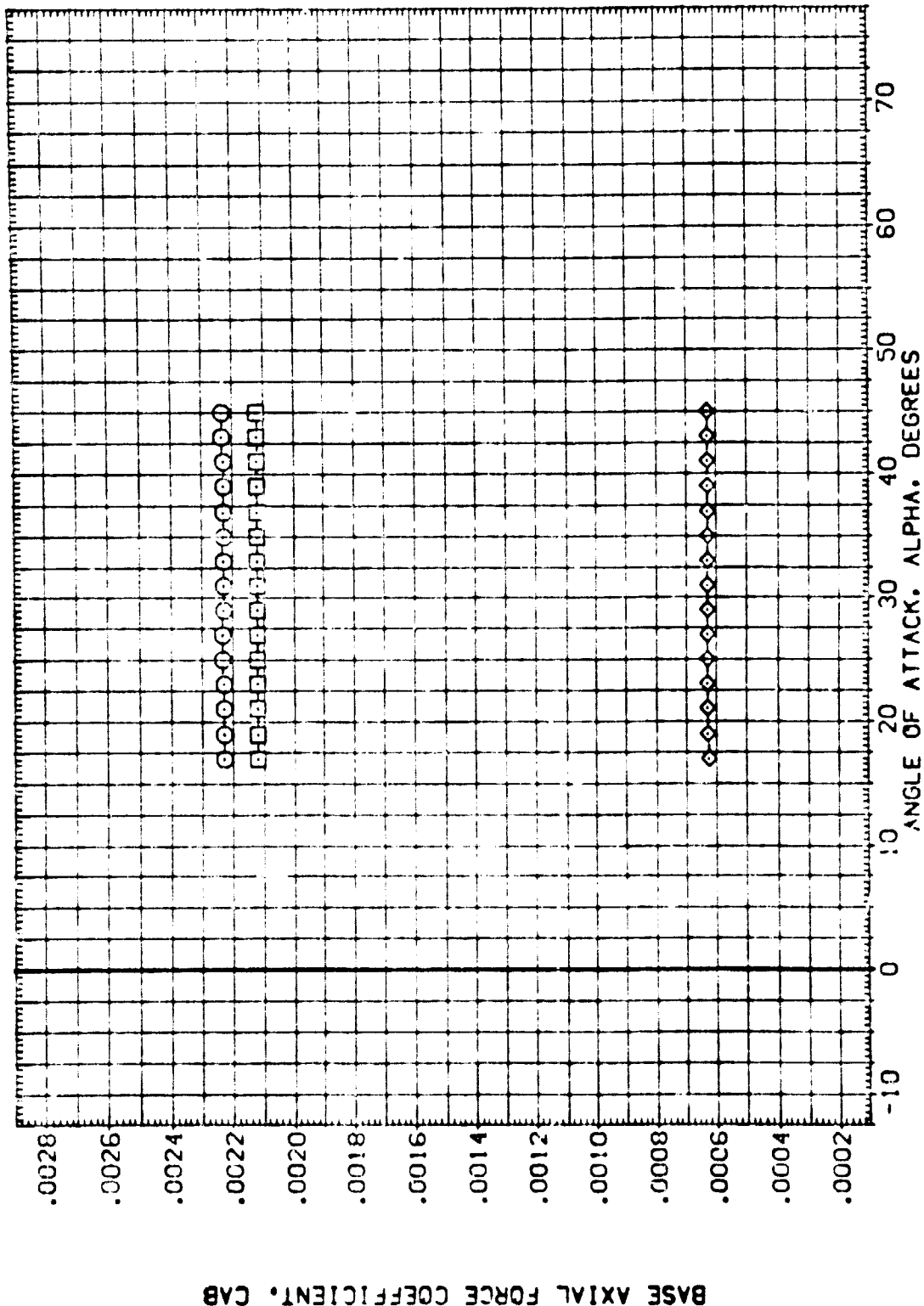


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00

DATA SET SYMBOL: (C1) (C2) (C3) (C4) (C5) (C6) (C7) (C8) (C9) (C10) (C11) (C12) (C13) (C14) (C15) (C16) (C17) (C18) (C19) (C20) (C21) (C22) (C23) (C24) (C25) (C26) (C27) (C28) (C29) (C30) (C31) (C32) (C33) (C34) (C35) (C36) (C37) (C38) (C39) (C40) (C41) (C42) (C43) (C44) (C45) (C46) (C47) (C48) (C49) (C50) (C51) (C52) (C53) (C54) (C55) (C56) (C57) (C58) (C59) (C60) (C61) (C62) (C63) (C64) (C65) (C66) (C67) (C68) (C69) (C70) (C71) (C72) (C73) (C74) (C75) (C76) (C77) (C78) (C79) (C80) (C81) (C82) (C83) (C84) (C85) (C86) (C87) (C88) (C89) (C90) (C91) (C92) (C93) (C94) (C95) (C96) (C97) (C98) (C99) (C100)

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 ELV-20 000 10,000 20,000  
 ELV-21 000 10,000 20,000  
 ELV-22 000 10,000 20,000  
 ELV-23 000 10,000 20,000  
 ELV-24 000 10,000 20,000  
 ELV-25 000 10,000 20,000  
 ELV-26 000 10,000 20,000  
 ELV-27 000 10,000 20,000  
 ELV-28 000 10,000 20,000  
 ELV-29 000 10,000 20,000  
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 ELV-32 000 10,000 20,000  
 ELV-33 000 10,000 20,000  
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 ELV-35 000 10,000 20,000  
 ELV-36 000 10,000 20,000  
 ELV-37 000 10,000 20,000  
 ELV-38 000 10,000 20,000  
 ELV-39 000 10,000 20,000  
 ELV-40 000 10,000 20,000  
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 ELV-67 000 10,000 20,000  
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 ELV-69 000 10,000 20,000  
 ELV-70 000 10,000 20,000  
 ELV-71 000 10,000 20,000  
 ELV-72 000 10,000 20,000  
 ELV-73 000 10,000 20,000  
 ELV-74 000 10,000 20,000  
 ELV-75 000 10,000 20,000  
 ELV-76 000 10,000 20,000  
 ELV-77 000 10,000 20,000  
 ELV-78 000 10,000 20,000  
 ELV-79 000 10,000 20,000  
 ELV-80 000 10,000 20,000  
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 ELV-82 000 10,000 20,000  
 ELV-83 000 10,000 20,000  
 ELV-84 000 10,000 20,000  
 ELV-85 000 10,000 20,000  
 ELV-86 000 10,000 20,000  
 ELV-87 000 10,000 20,000  
 ELV-88 000 10,000 20,000  
 ELV-89 000 10,000 20,000  
 ELV-90 000 10,000 20,000  
 ELV-91 000 10,000 20,000  
 ELV-92 000 10,000 20,000  
 ELV-93 000 10,000 20,000  
 ELV-94 000 10,000 20,000  
 ELV-95 000 10,000 20,000  
 ELV-96 000 10,000 20,000  
 ELV-97 000 10,000 20,000  
 ELV-98 000 10,000 20,000  
 ELV-99 000 10,000 20,000  
 ELV-100 000 10,000 20,000

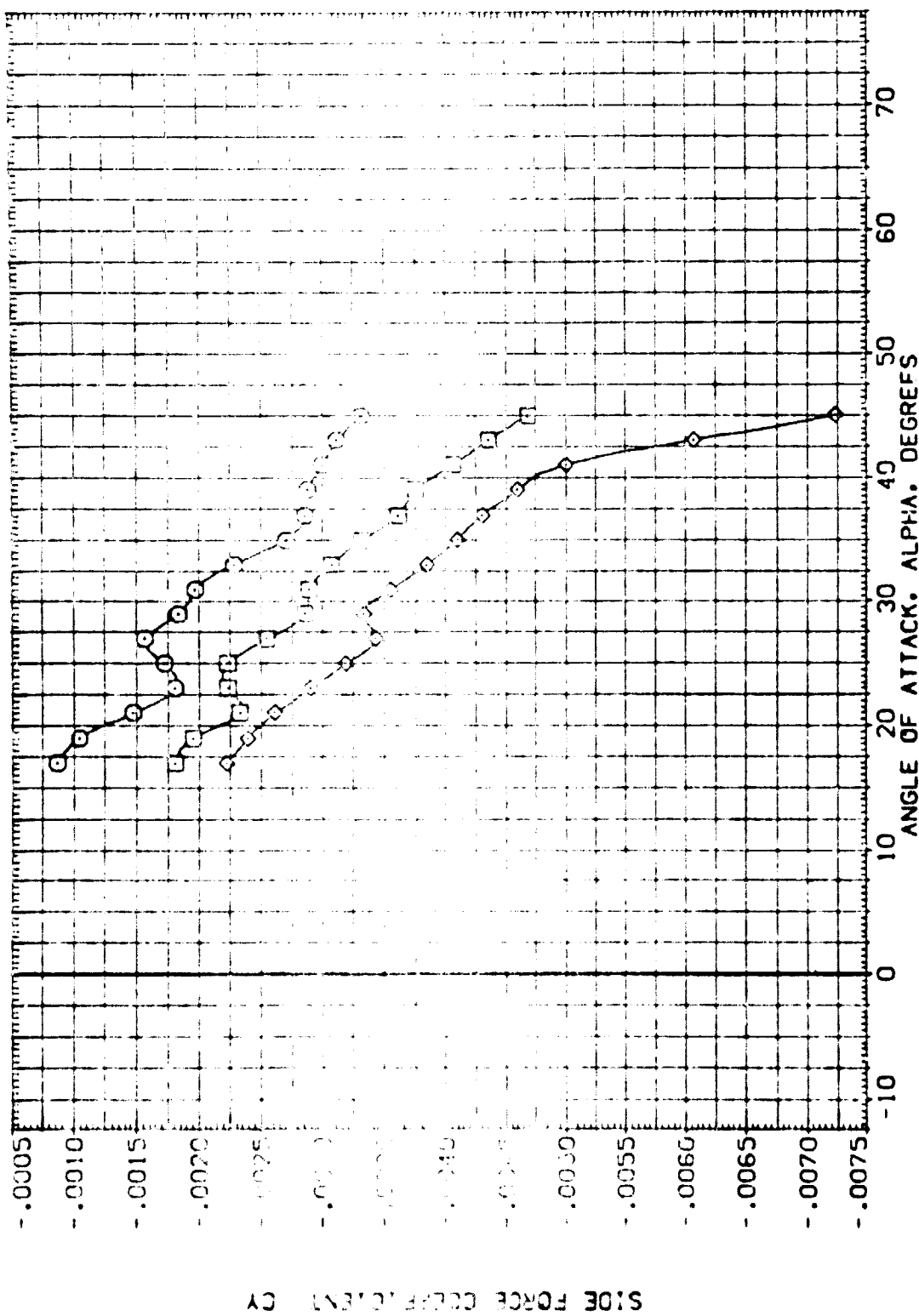


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
0179 005	C9 E13 F8 H16 N28 R5 V8 V116	.000	.000	.000	.000	CREF 2550.0000 50.00
0179 006	C9 E13 F8 H16 N28 R5 V8 V116	10.000	10.000	10.000	10.000	LREF 474.8100 IN.
0179 007	C9 E13 F8 H16 N28 R5 V8 V116	20.000	20.000	20.000	20.000	BREF 936.6400 IN.
						XREF 1076.6800 IN.
						YREF .0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

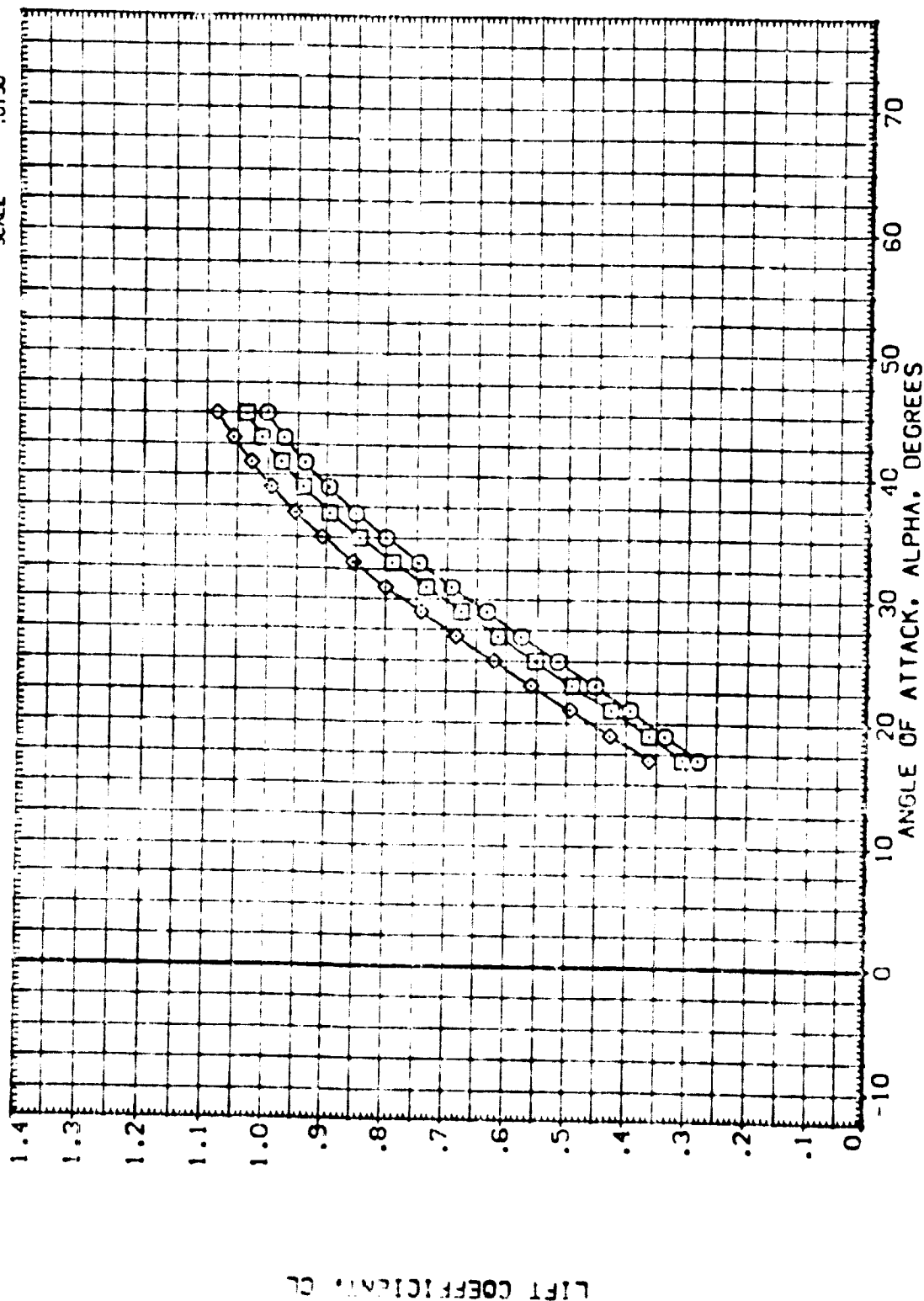


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(M)MACH = 8.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(ATW001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	SREF 2650.0000 SQ.FT.
(ATW017)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	10.000	10.000	10.000	10.000	LREF 474.8100 IN.
(ATW020)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	20.000	20.000	20.000	20.000	BREF 936.6800 IN.
						XTRP 1076.6800 IN. X0
						YTRP .0000 IN. Y0
						ZTRP .0000 IN. Z0
						SCALE .0150

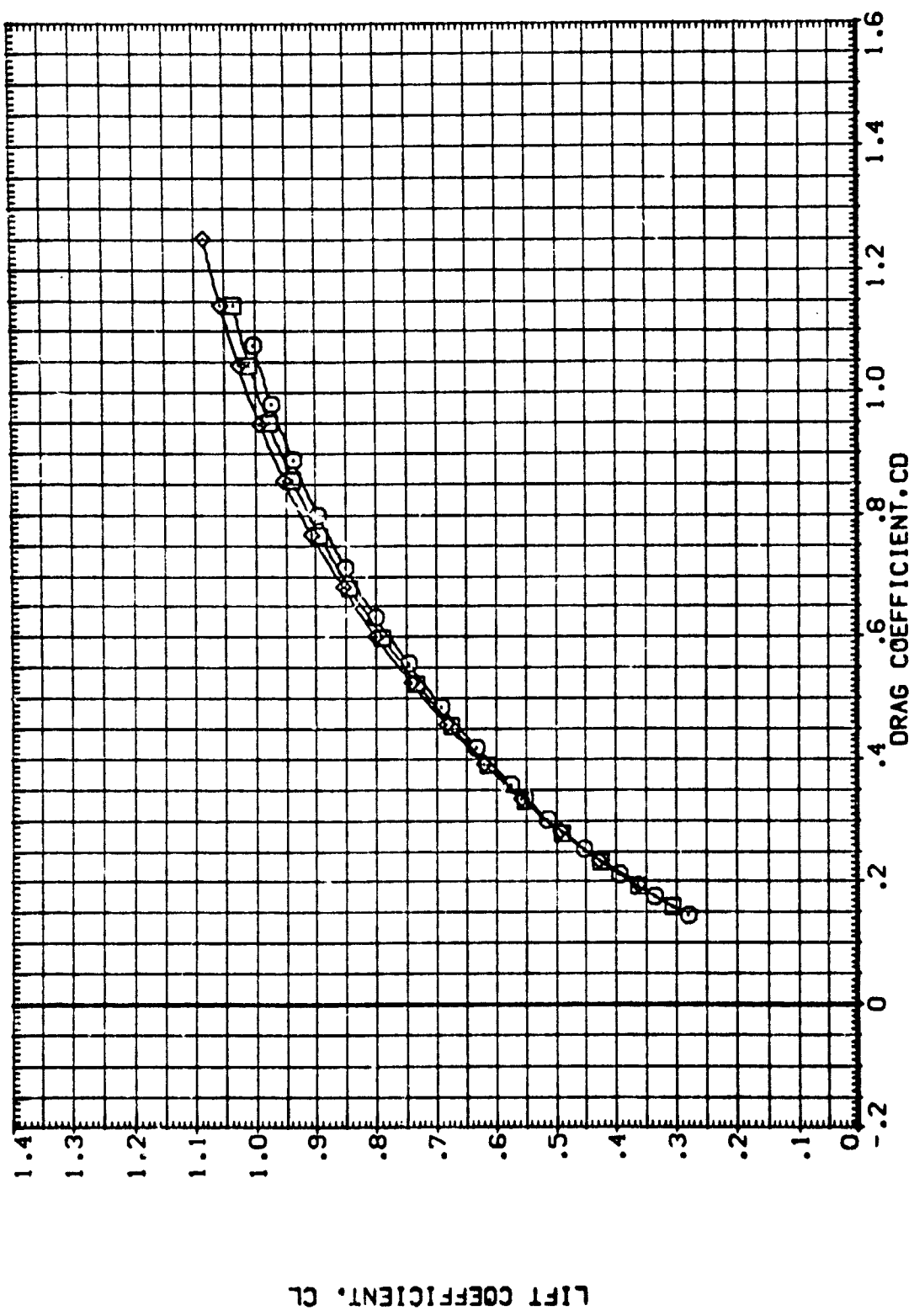


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ATV001) Q479 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (ATV017) Q479 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (ATV020) Q479 B26 C9 E43 F8 H16 N28 R5 V8 V116

ELV-L0 ELV-L1 ELV-R1 ELV-R0  
 .000 .000 .000 .000  
 10.000 10.000 10.000 10.000  
 20.000 20.000 20.000 20.000

REFERENCE INFORMATION  
 SREF 2650.0000 50.000  
 LREF 474.3100 10.000  
 EREF 936.6800 10.000  
 XREF 1076.6800 10.000  
 YREF 375.0000 10.000  
 ZREF 375.0000 10.000  
 SCALE .0150

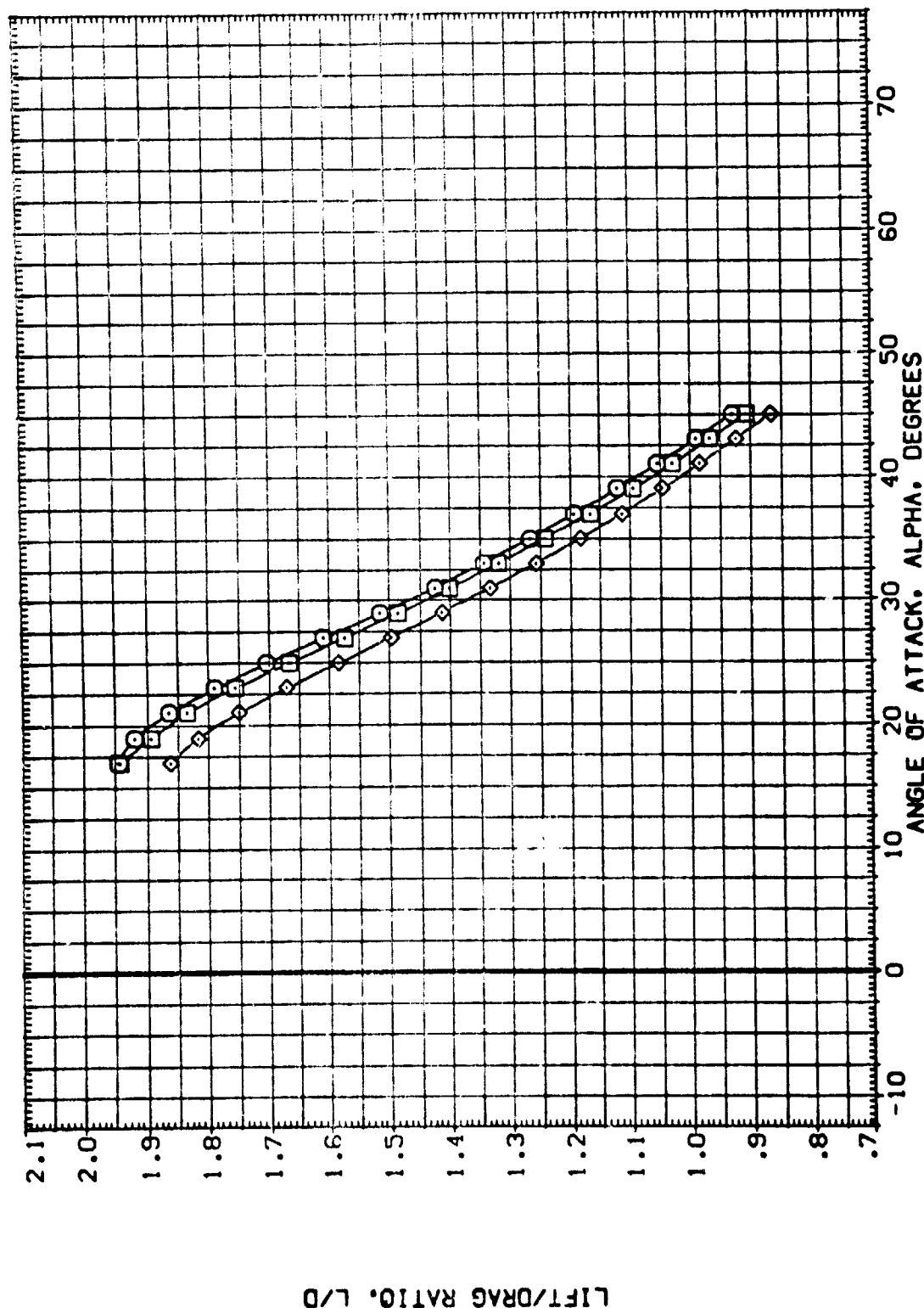


FIG. 7 FULL SPAN ELEVON EFFECTIVENESS (POSITIVE DEFLECTIONS)

(A)MACH = 8.00

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	17.000	BETA	8.000	DLTLY	2690.0000
◇	19.000	RUDDER	.000	ITW025	474.8100
△	21.000	SPDRK	56.000	ITW023	936.6800
▽	23.000	RV/L	3.530	ITW017	1076.6800
◇	25.000			ITW020	375.0000
◇	27.000				SCALE .0150

INCREMENTAL NORMAL FORCE COEFFICIENT, DLTCN

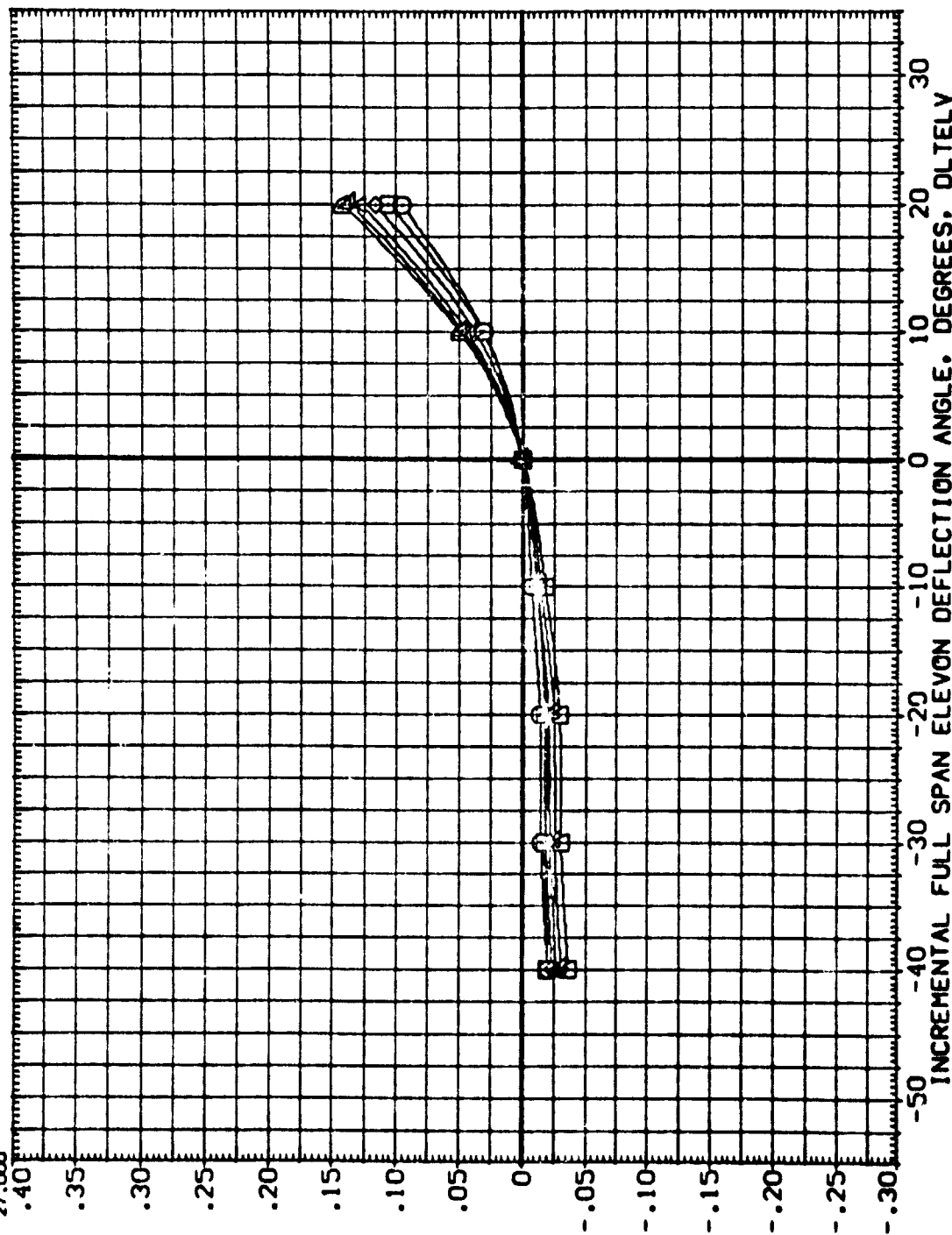


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (1TW025)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	29.000	MAOH	.000 DATASET	SREF 2630.0000
◇	31.000	BETA	55.000 1TW025	LREF 474.8100
△	33.000	RUDDER	3.530 1TW015	BREF 936.6900
▽	35.000		1TW001	XREF 1076.6900
◇	37.000		1TW020	YREF 375.0000
▽	39.000			ZREF 375.0000
				SCALE .0150

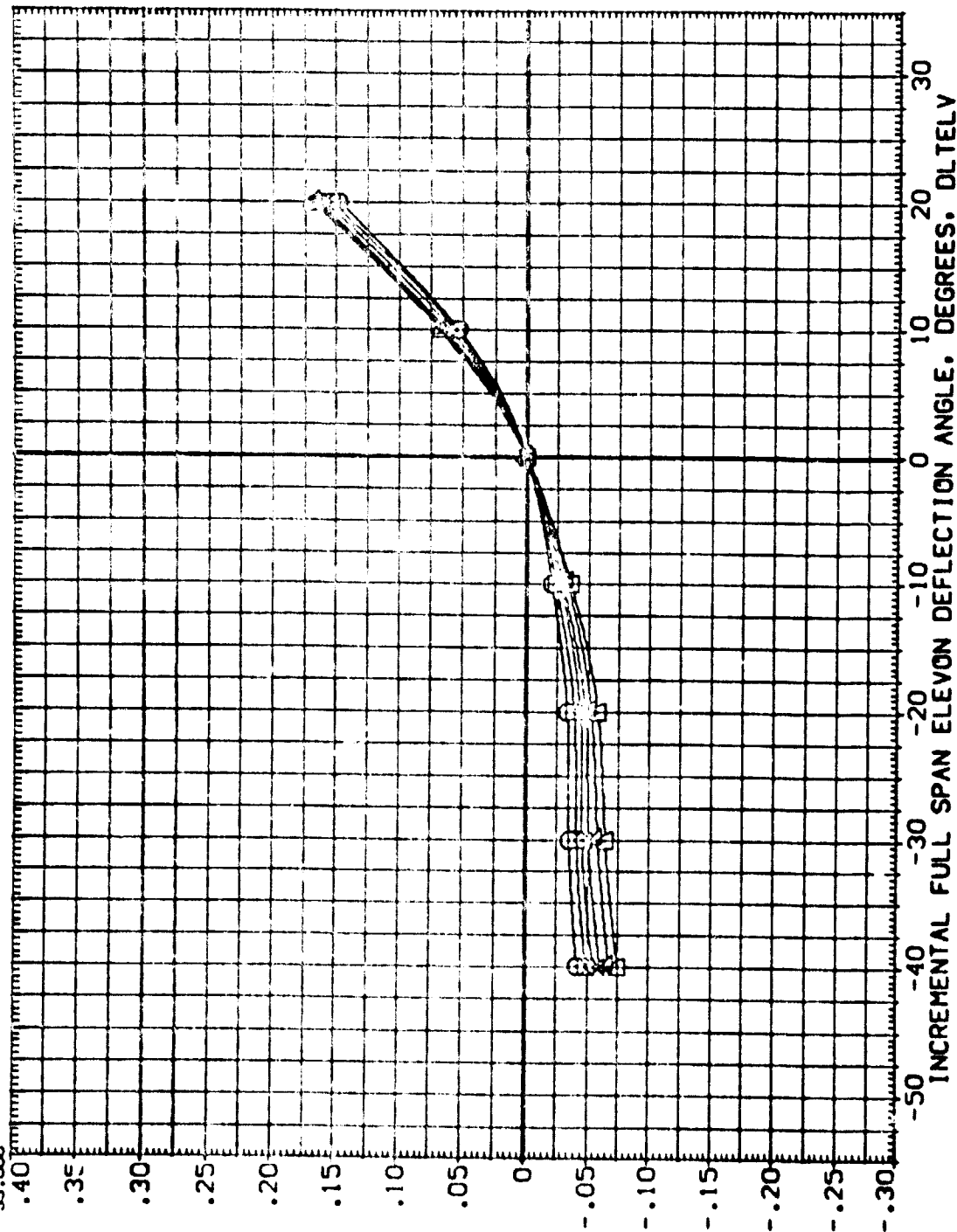


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLTELV	DATASET	DLTELV	SREF	REFERENCE INFORMATION
○	41.000		8.000	DLRFP	.000	ITW025	-40.000	ITW046	2690.0000	50.FT.
□	43.000	BETA	.000	SPDRK	55.000	ITW015	-20.000	ITW023	474.8100	IN.
◇	45.000	RUDDER	.000	RVL	3.530	ITW001	.000	ITW017	936.6800	IN.
						ITW020	20.000		1076.6800	IN.X3
									375.0000	IN.V8
									375.0000	IN.Z0
									SCALE	.0150

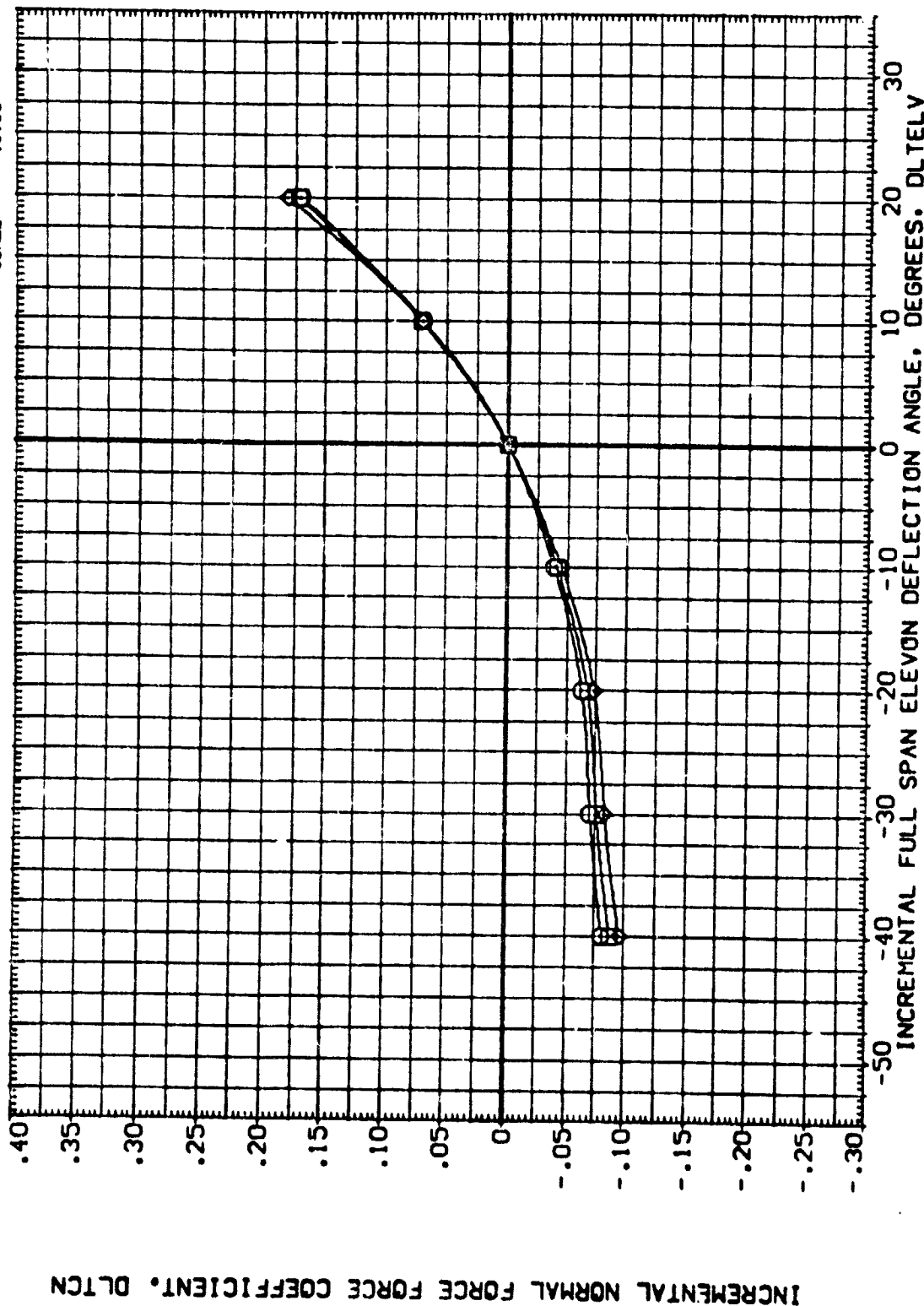


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLTELY	DATASET	DLTELY	SREF	REFERENCE INFORMATION
□	17.000	8.000	DLBDFP	.000	ITW025	-40.000	ITV046	-30.000	2630.0000	50. FT.
□	19.000	.000	SPDBRK	55.000	ITW015	-20.000	ITV023	-10.000	174.8100	IN.
◊	21.000	.000	RV/L	3.530	ITW001	.000	ITV017	10.000	9.36.6800	IN. X0
◊	23.000				ITW020	20.000			1076.6800	IN. Y0
◊	25.000								375.0000	IN. Z0
◊	27.000								375.0150	SCALE

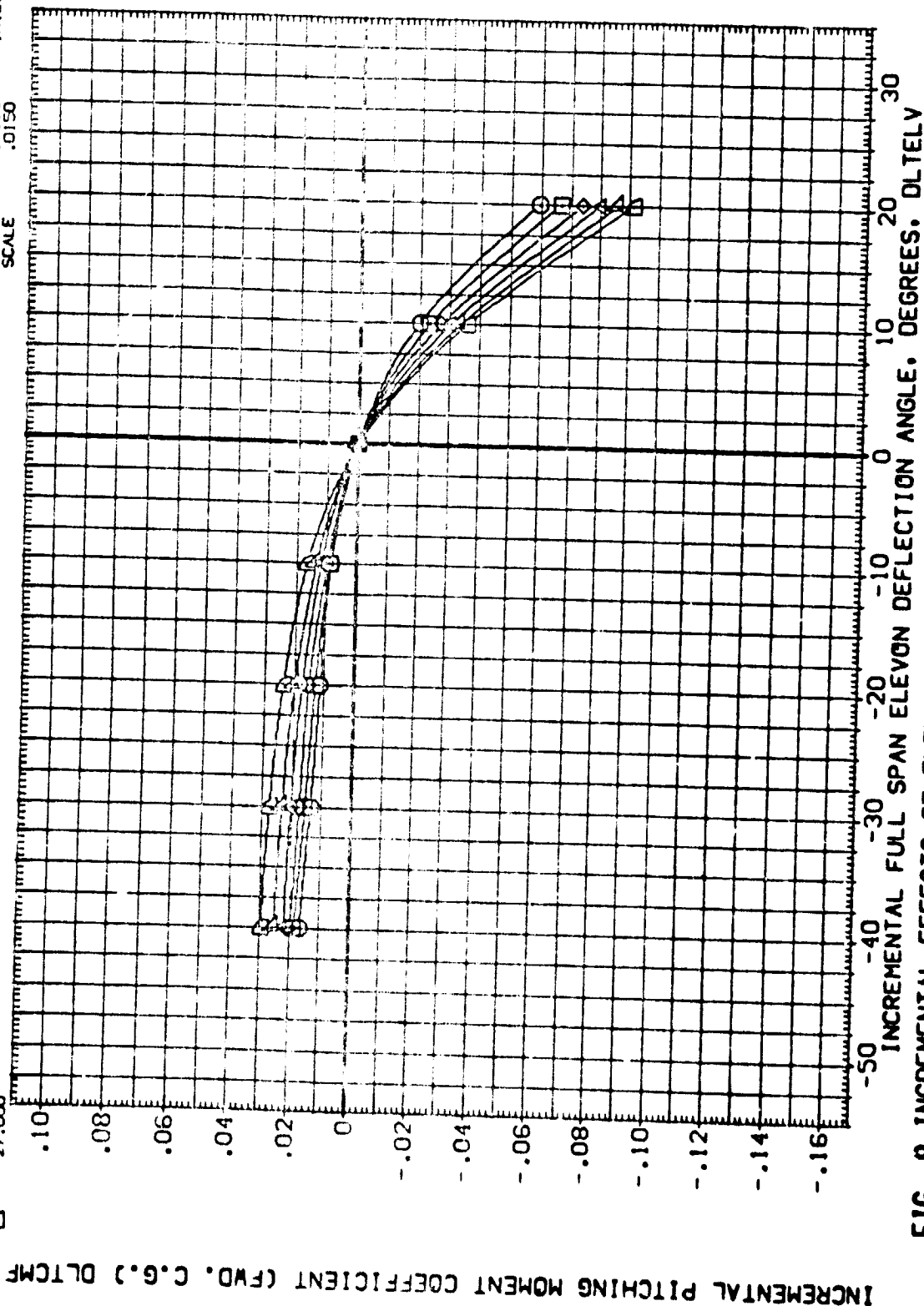


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLTELV	REFERENCE INFORMATION
29.000	8.000	DLBOFP	.000	ITW025	-30.000	SREF 2690.0000
31.000	.000	SPORBK	55.000	ITW015	-10.000	LREF 474.8100
33.000	.000	RN/L	3.530	ITW017	10.000	BREF 936.6800
35.000						XREF 1076.6800
37.000						YREF .0000
39.000						ZREF 375.0000
						SCALE .0150

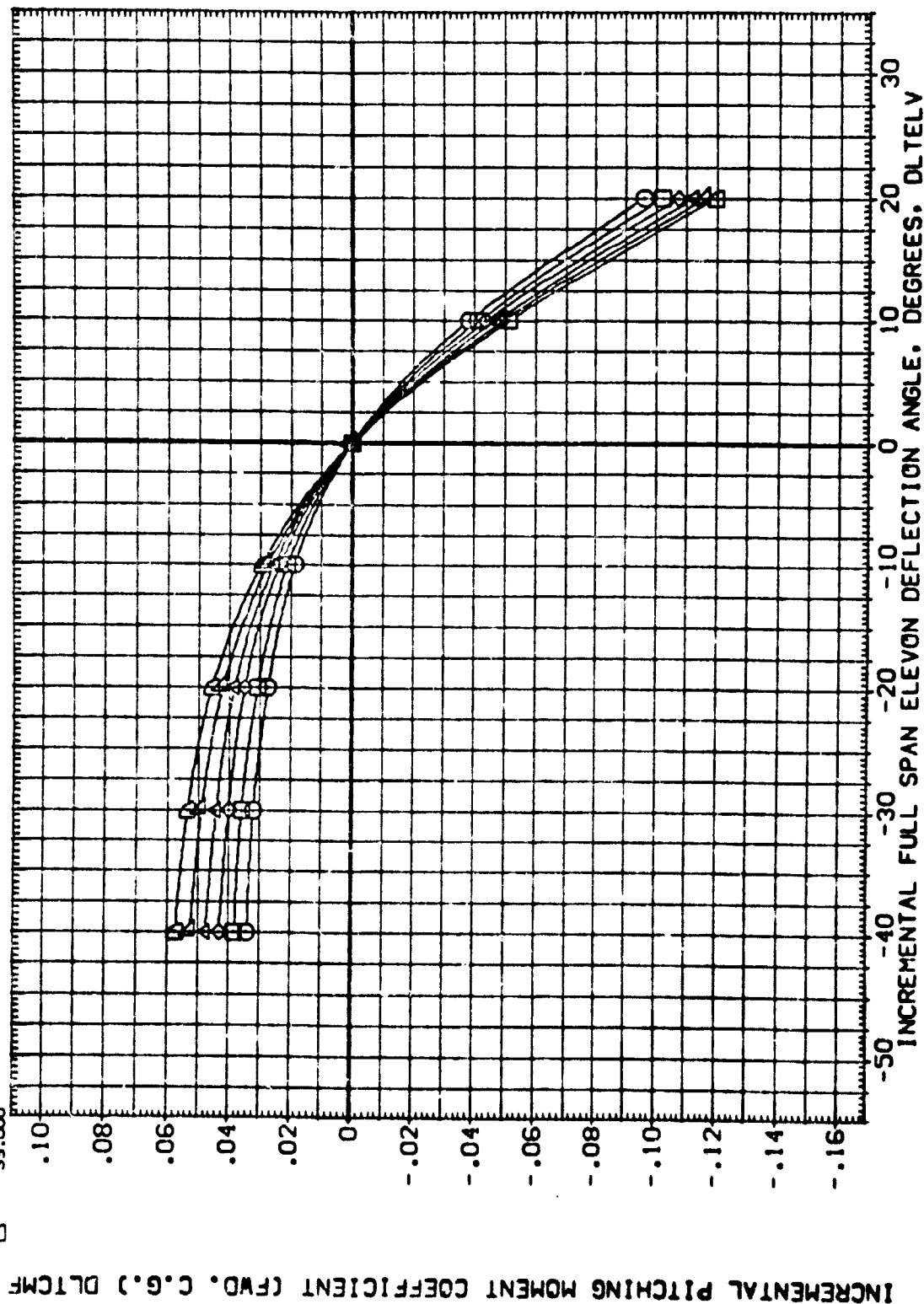


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116  
(ITW025)

SYNOPSIS

ALPHA  
41.000  
43.000  
45.000

**MACH**  
**BETA**  
**PLUDDER**

PARAMETER  
8.000  
.000  
.000

VALUES	LEDFP	POBEX	IN
1	1	1	1
2	1	1	1
3	1	1	1
4	1	1	1
5	1	1	1
6	1	1	1
7	1	1	1
8	1	1	1
9	1	1	1
10	1	1	1
11	1	1	1
12	1	1	1
13	1	1	1
14	1	1	1
15	1	1	1
16	1	1	1
17	1	1	1
18	1	1	1
19	1	1	1
20	1	1	1
21	1	1	1
22	1	1	1
23	1	1	1
24	1	1	1
25	1	1	1
26	1	1	1
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28	1	1	1
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90	1	1	1
91	1	1	1
92	1	1	1
93	1	1	1
94	1	1	1
95	1	1	1
96	1	1	1
97	1	1	1
98	1	1	1
99	1	1	1
100	1	1	1

3,530  
5,000  
.000

135 25 15

SOURCE  
V 0000

ASET 0 - -  
046  
023

**SPE**

**LRE**

**BRE**

**V**

**0000**

**0000**

**0000**

REFERENCE  
2630.00  
474.8  
936.6

05  
NI  
NI  
0117420-

DATA	ONE	TWO
00	00	00

510A11  
520A11  
135V1W

135 25 15

DATA  
DELTA  
-40.0  
-20.0

DATA SOURCE  
TELEVISION

SOURCE  
V 0000

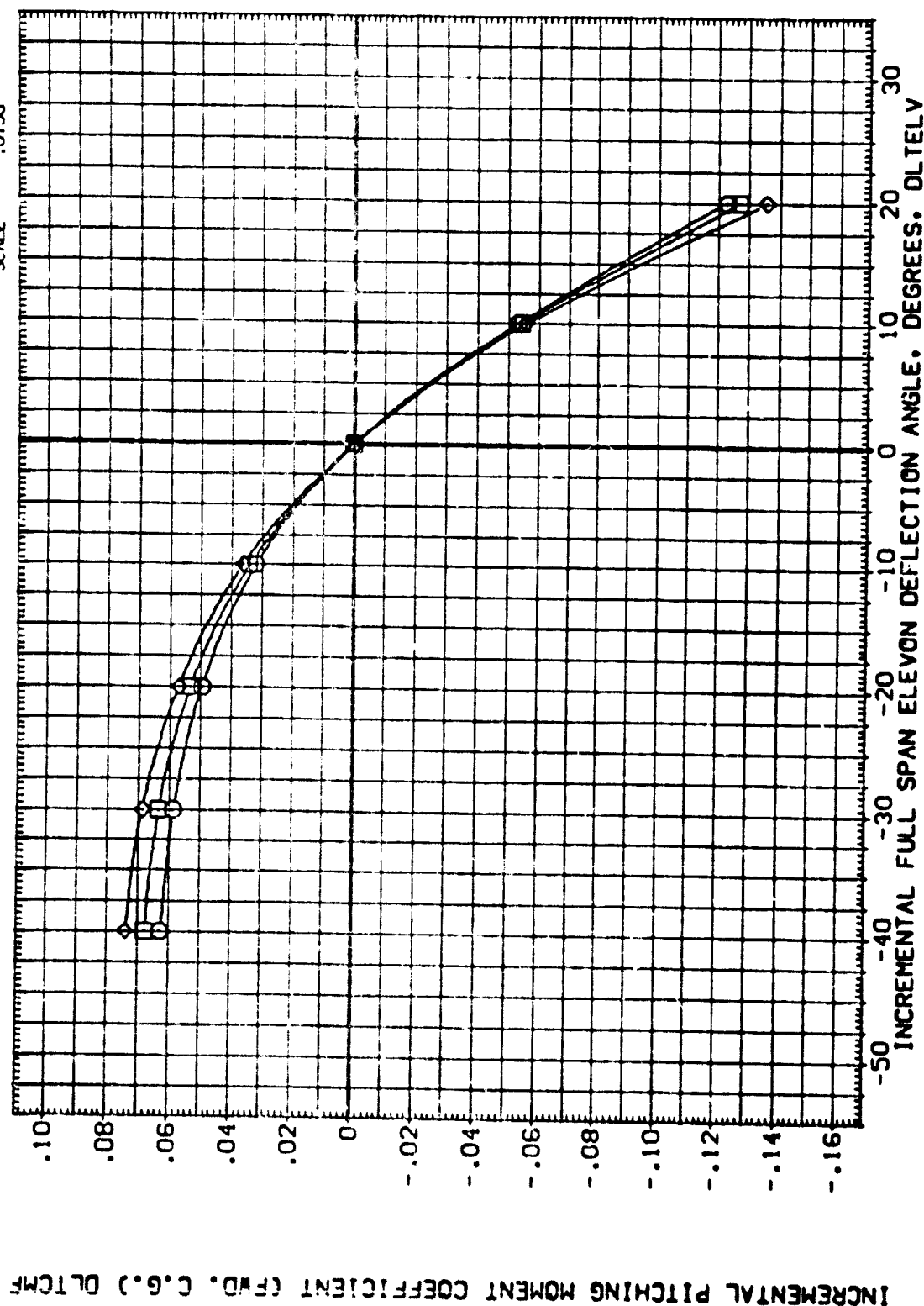
PRICE

DATASET  
 ITV046  
 ITV023

ASET 0 - -  
046  
023

0.75  
-30.0  
-10.0

ULTELY  
30,000  
10,000



**FIG. 8. INCREMENTAL EFFECTS OF ELEVEN DEFLECTION**

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	DATA SET	DL TELV	DL TELV	SCALE
17.000	8.000	ITW046	-30.000	2690.0000	50.FT.
19.000	.000	ITW025	-40.000	474.8100	IN.
21.000	.000	ITW015	-20.000	936.6800	IN.
23.000	.000	ITW001	.000	1076.6800	IN.
25.000	.000	ITW020	20.000	375.0000	IN.
27.000	.000				IN.

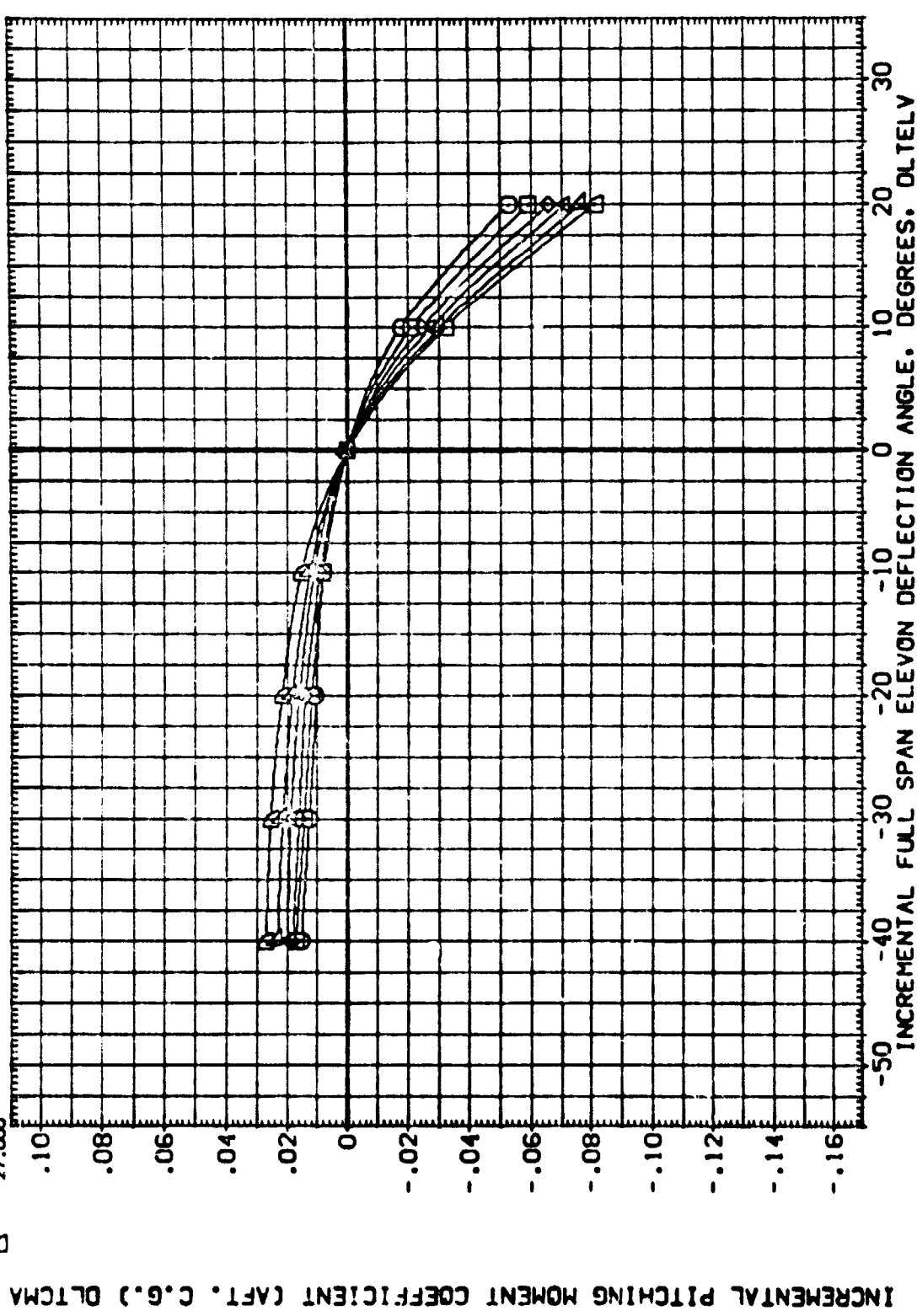


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION



0A79 826 C9 E43 F8 M16 N28 R5 V8 W116

(1TW025)

SYMBOL  
□ ◇ ◆ ◆ ◆ ◆ ◆

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000  
39.000

MACH  
BETA  
RUDDER

PARAMETRIC VALUES  
8.000  
.000  
.000

.000  
55.000  
3.530

DATA SOURCE  
DLTLY  
-40.000  
-20.000  
20.000

DATASET  
1TW046  
1TW023  
1TW017

DLTLY  
-30.000  
-10.000  
10.000

REFERENCE INFORMATION  
2630.0000  
474.8100  
536.6800  
1076.6800  
375.0000  
375.0000  
SCALE .0150

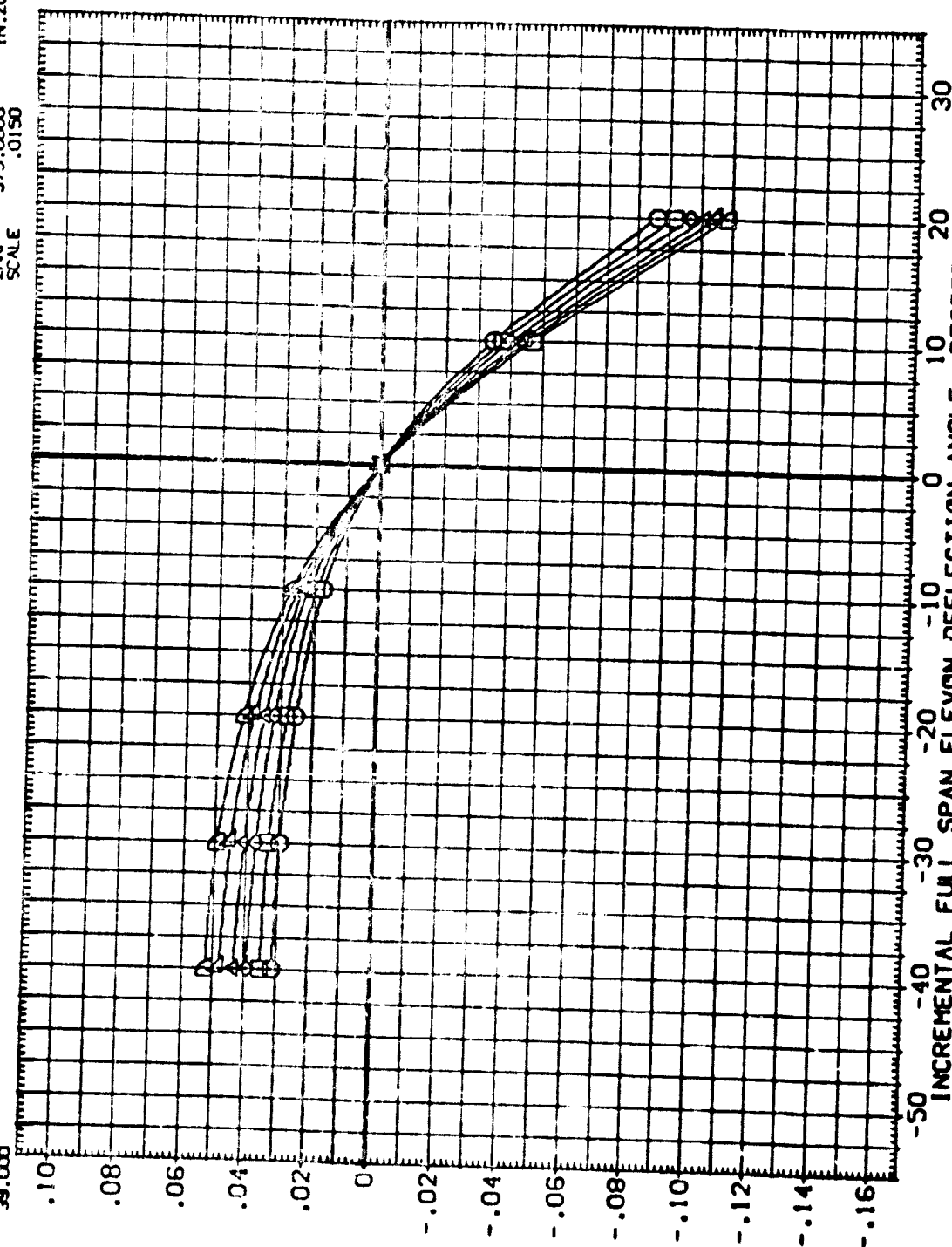


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL	ALPHA	MACH	BETA	RUDDER	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION			
○	41.000				0.000	DLBDFP	DLTCLV	SREF	2690.0000	50.FT.
□	43.000				.000	SPEEDK	-40.000	LREF	474.8100	IN.
◇	45.000				.000	RVL	-20.000	BREF	936.6800	IN.
					.000		.000	YREF	1076.6800	IN.X0
					3.530		10.000	ZREF	375.0000	IN.Y0
							20.000	SCALE	.0150	IN.Z0

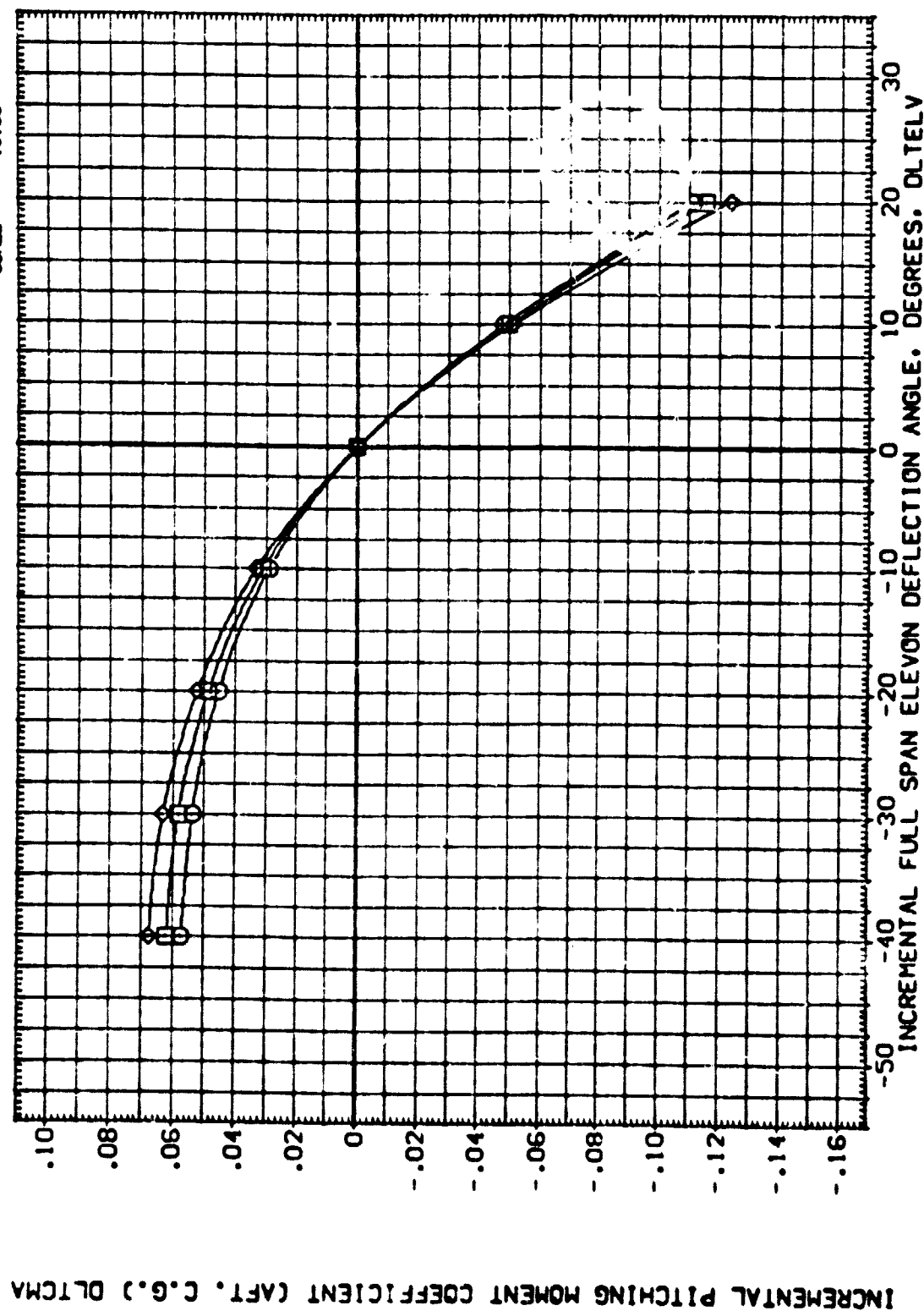


FIG. 8 INCREMENTAL EFFECTS OF ELEVEN DEFLECTION

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
□	ALPHA	17.000	MACH	.000	DATASET	DLTELV	SRZF
□		19.100	BETA	55.000	ITW025	-20.000	LREF
□		21.100	FLUTTER	3.530	ITW015	-10.000	BREF
△		23.000			ITW001	10.000	XREF
△		25.000			ITW020		YREF
△		27.000					ZREF
							SCALE
							375.0000
							.0150

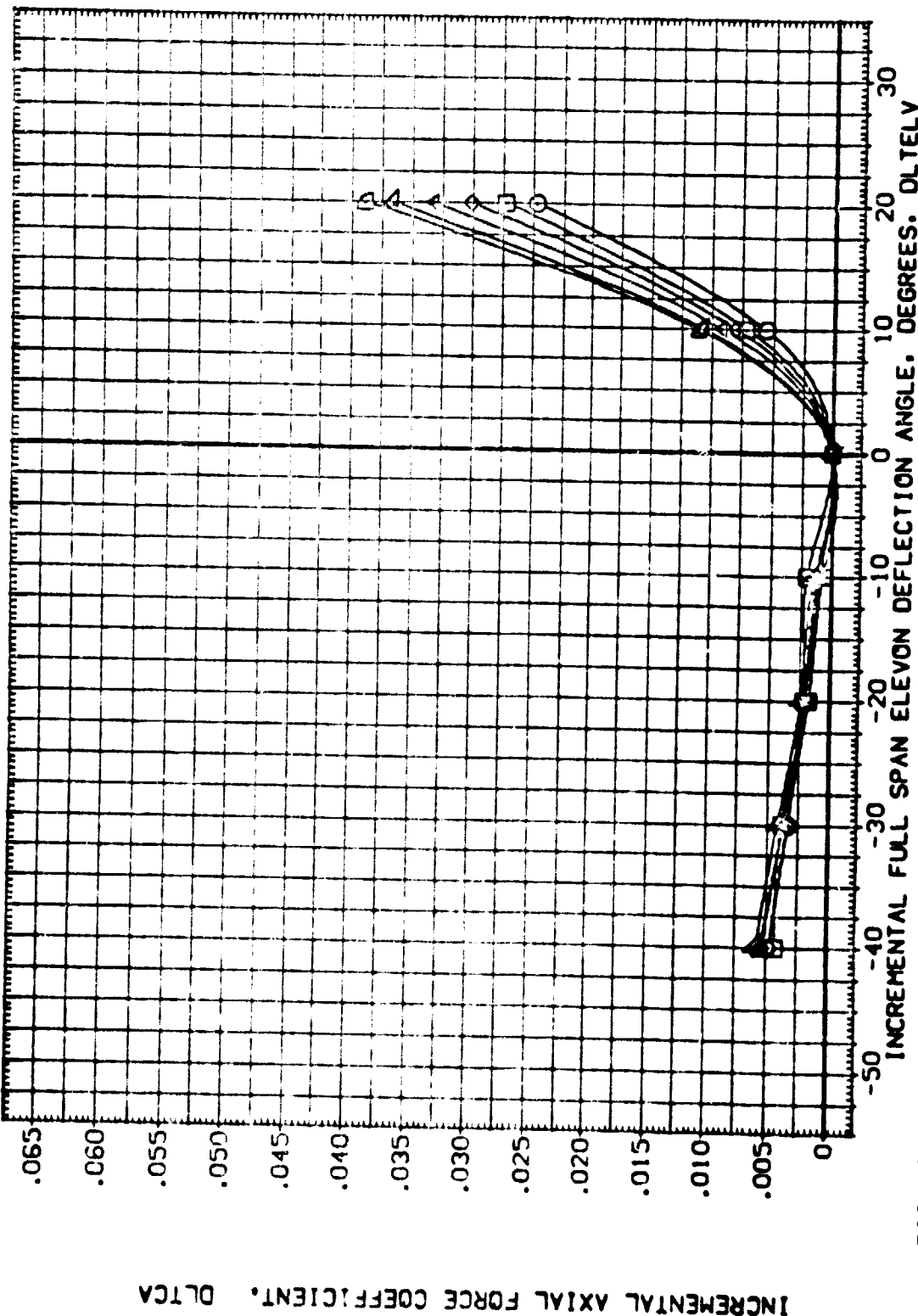


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 B26 C9 E43 F8 M15 N28 R5 V8 W116 (1TW025)

ALPHA	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLTLY	SREF	REFERENCE INFORMATION
29.000	MAOH	8.000	DLBUP	0.000	2690.0000	50.FT.
31.000	BETA	.000	SPOBPK	-30.000	474.8100	IN.
33.000	RUDDER	.000	RAVL	-10.000	936.6800	IN.
35.000		.000		10.000	1076.6800	IN.
37.000					0.000	IN.
39.000					375.0000	IN.
					ZMRP	IN.
					SCALE	0150

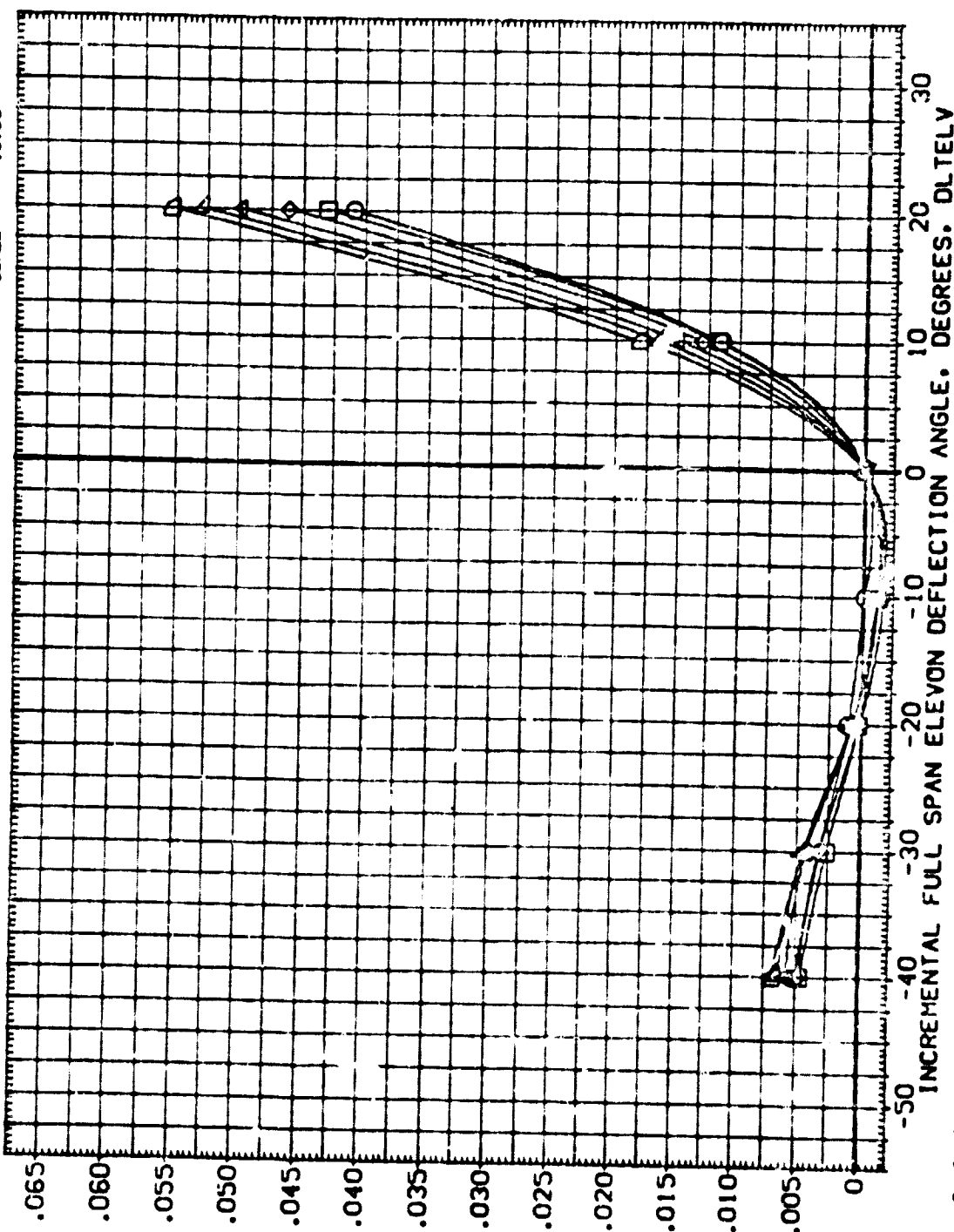


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

SYMBOL  
 ○  
 □  
 ◇

ALPHA  
 41.000  
 43.000  
 45.000

MACH  
 BETA  
 RUDDER

PARAMETRIC VALUES  
 9.000  
 .000  
 .000

DLBOFP  
 SPDRK  
 RV/L

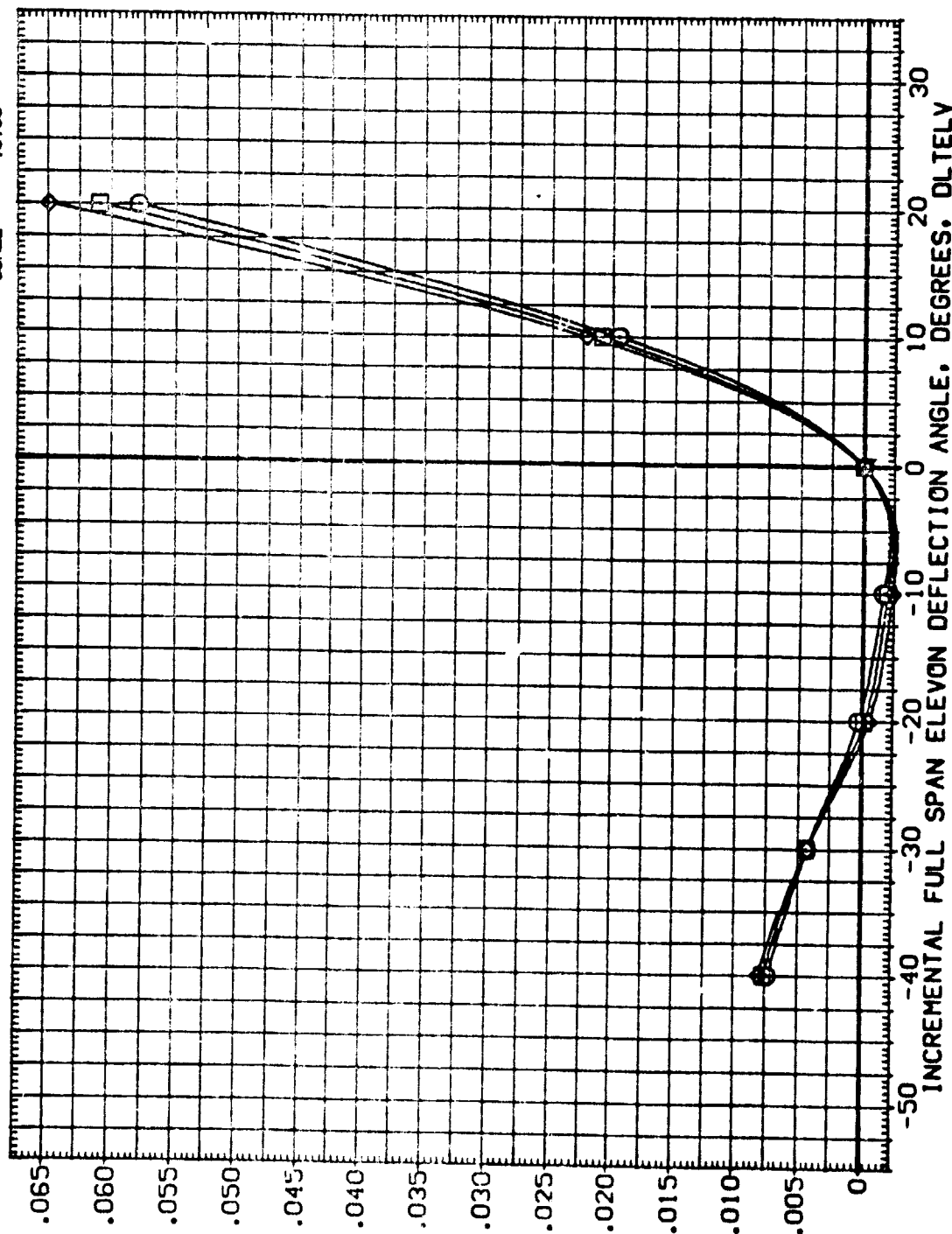
.000  
 55.000  
 3.530

DATA SOURCE  
 DLTELY  
 -40.000  
 -20.000  
 .000

DATASET  
 ITW025  
 ITW015  
 ITW001  
 ITW020

DLTELY  
 -30.000  
 -10.000  
 10.000

REFERENCE INFORMATION  
 SQ.FT.  
 2690.0000  
 474.8100  
 936.8800  
 1076.8800  
 375.0000  
 .0150



INCREMENTAL AXIAL FORCE COEFFICIENT, DLTCA

FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	.000 DATASET	DATA SOURCE	DATASET	DLTELY	SHEF	REFERENCE INFORMATION
□	29.000		8.000	DLBDFP		ITV046	-30.000	2690.0000	50.FT.
□	31.000	BETA	.000	SPOGRK	55.000	ITV025	-10.000	474.8100	IN.
◇	33.000	RUDDER	.000	RVL	3.530	ITV023	-10.000	936.6800	IN.
△	35.000					ITV001	10.000	1076.6800	IN. 20
▽	37.000					ITV020	20.000	375.0000	IN. 10
▽	39.000							375.0000	IN. 20
								SCALE	.0150

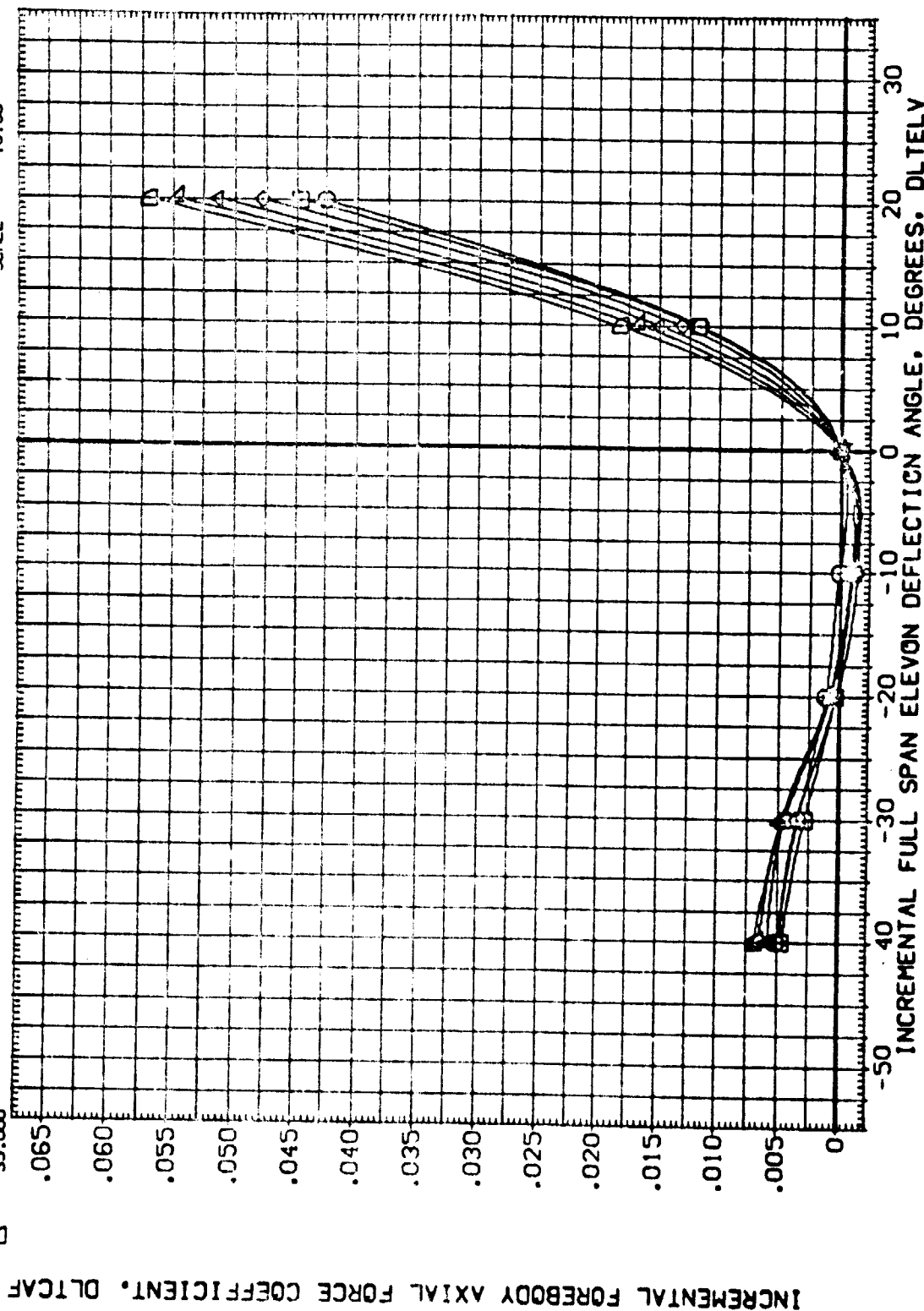
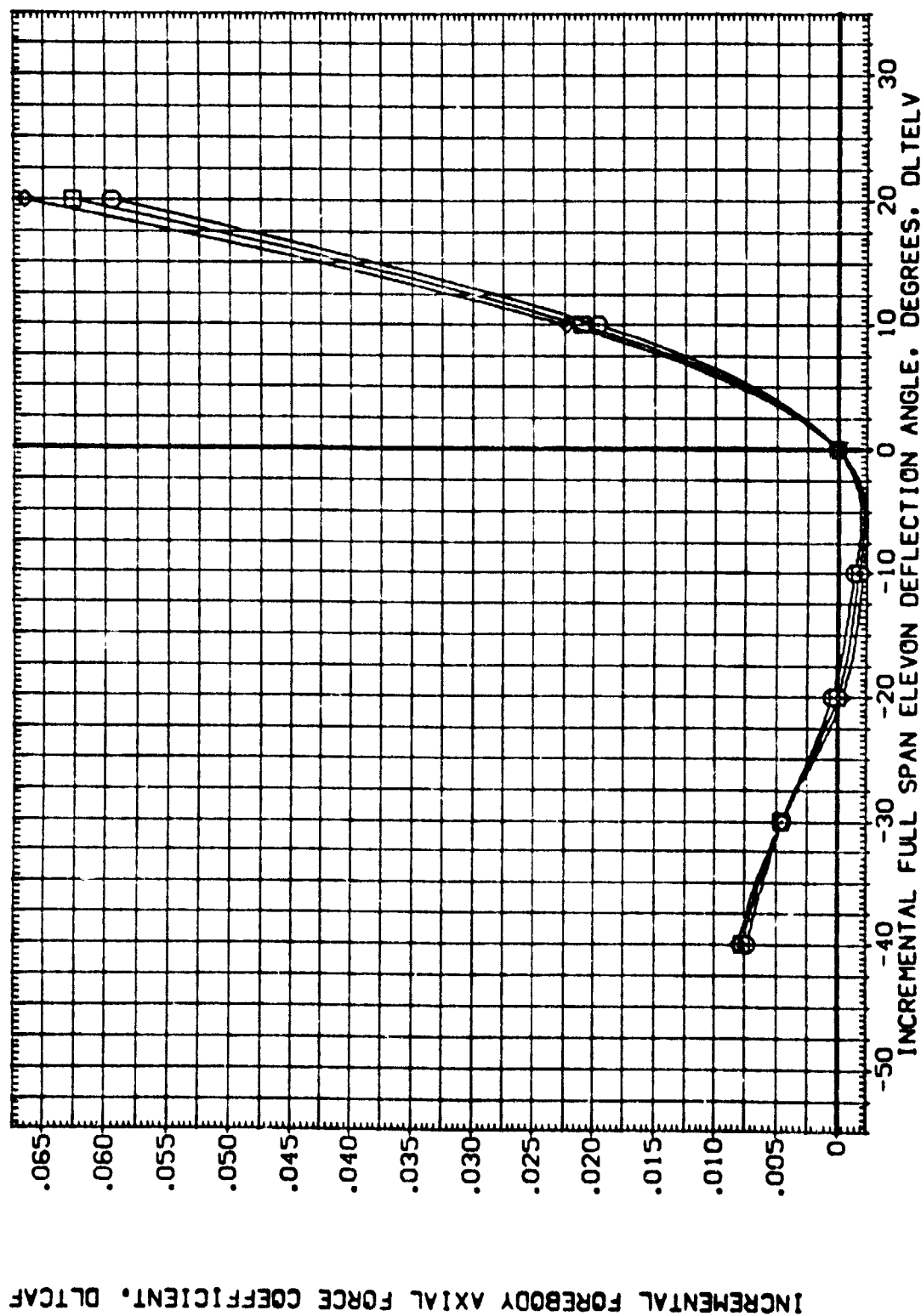


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

(520M11)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	41.000	MACH 8.000	CL TELV .000	DT TELV 2690.0000
□	43.000	BETA .000	DTV025 55.000	USEF 474.8100
◇	45.000	RUDDER .000	DTV015 3.530	BREF 936.6800
			RVL DTV001 10.000	YFRP 1076.6800
			DTV020 20.000	YFRP .0000
				ZFRP 375.0000
				SCALE .0150



**FIG. 8 INCREMENTAL EFFECTS OF ELEVEN DEFLECTION**





(ITW025)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
 29.000  
 31.000  
 33.000  
 35.000  
 37.000  
 39.000

PARAMETRIC VALUES  
 MACH 8.000  
 BETA .000  
 RUDDER .000  
 DLEDFP .000  
 SPOBRK 55.000  
 RV/L 3.530

DATA SOURCE  
 DLTELY  
 DATASET  
 ITW025  
 ITW015  
 ITW001  
 ITW020

REFERENCE INFORMATION  
 SREF 2650.0000  
 LREF 474.8100  
 BREF 936.6800  
 XTRP 1076.6800  
 YTRP .0000  
 ZTRP 375.0000  
 SCALE .0150

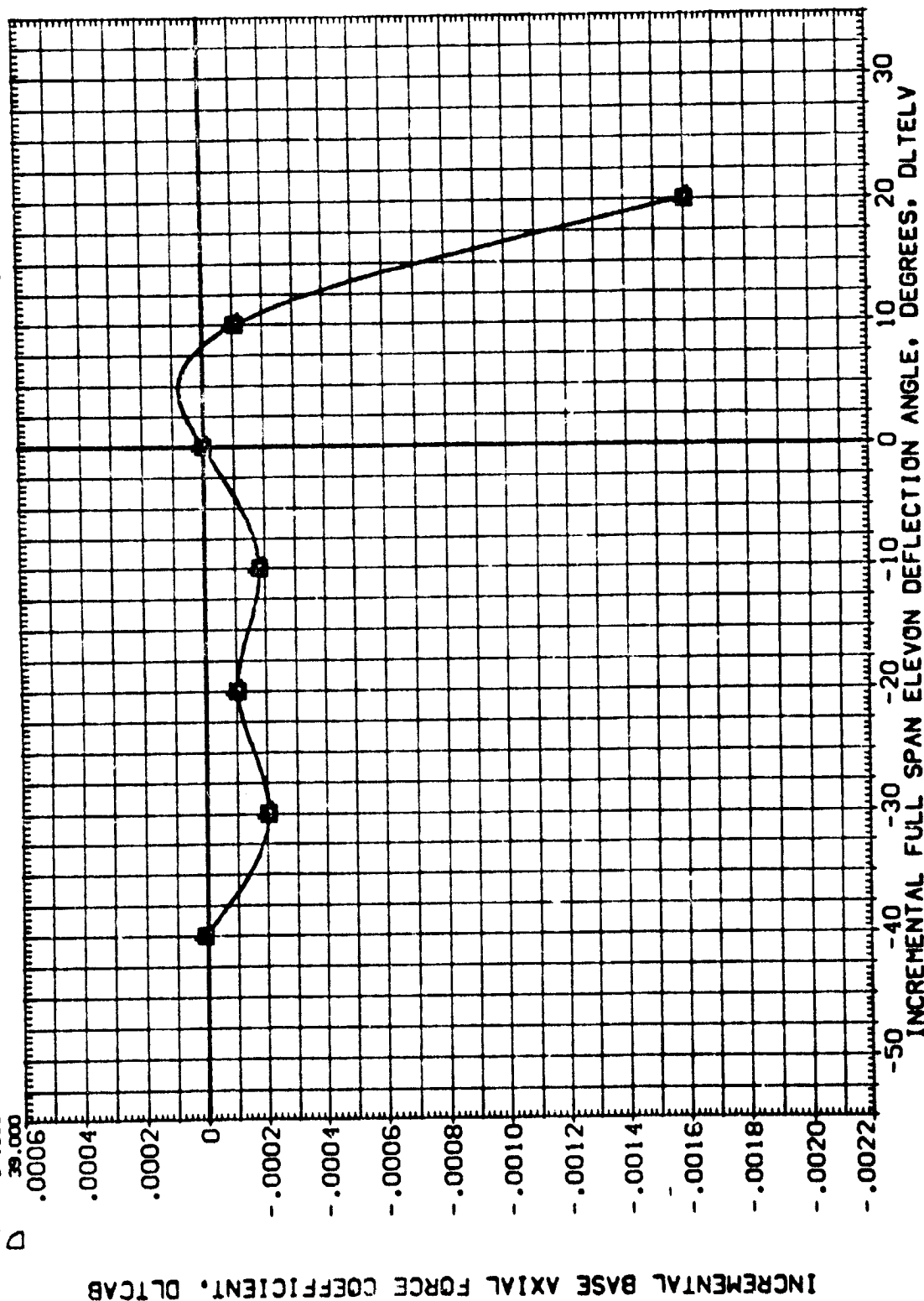


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION



0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLTELV	SREF	REFERENCE INFORMATION
17.000	8.000	OLBDFP	.000	ITW025	-30.000	2630.0000	50.FT.
19.000	.000	SPOBRK	55.000	ITW015	-10.000	474.8100	IN.
21.000	.000	RVUL	3.530	ITW001	10.000	936.8800	IN.
23.000				ITW020		1076.6800	IN.
25.000						.0000	IN.
27.000						375.0000	IN.
						.0150	SCALE

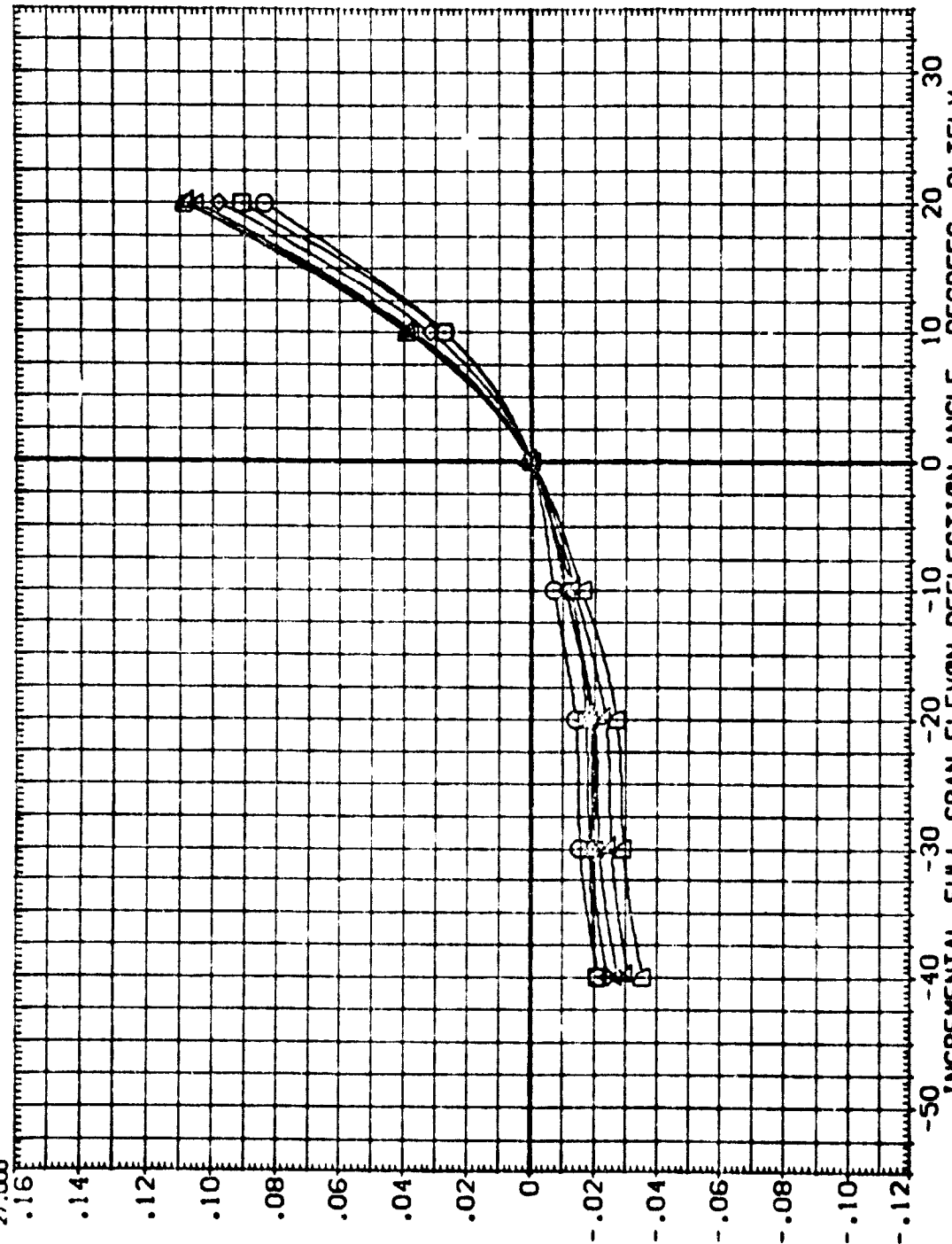


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (ITW025)

SYMBOL  
 ○ □ ◇ △ ▽ ▿

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
ALPHA	HAOH	DLBYFP	.000	ITW025	DLTCLV	SREF	30. FT.
31.000	BETA	SPORPK	55.000	ITW025	-30.000	UREF	IN.
33.000	RUDDER	RVL	3.530	ITW015	-10.000	BREF	IN.
35.000				ITW001	10.000	XREF	IN. X9
37.000				ITW020	20.000	YREF	IN. Y9
39.000					SCALE	ZREF	IN. Z9
							.0150

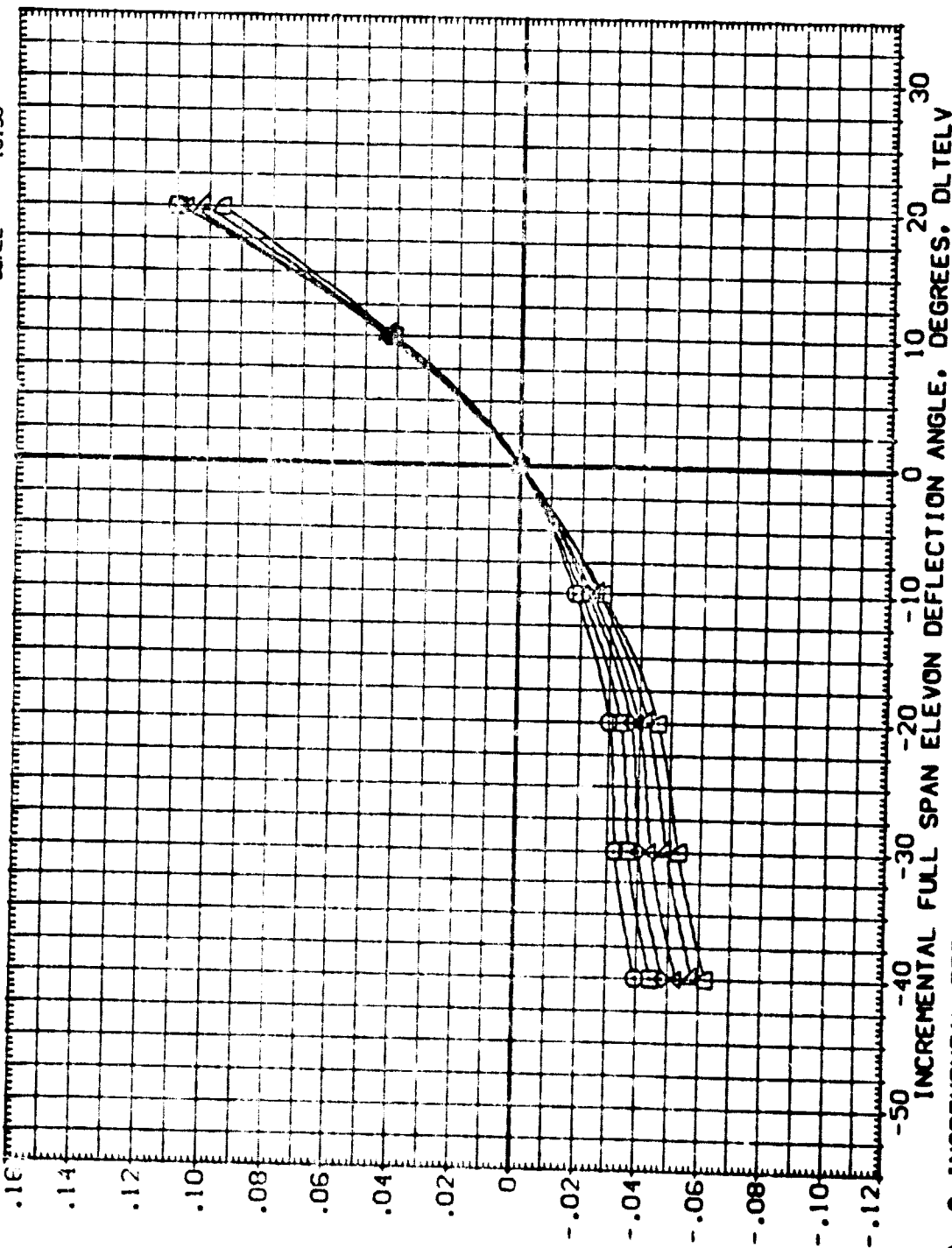


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

(11WC25)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
○  
□  
◇

ALPHA  
41.000  
43.000  
45.000

MACH  
8.000  
.000  
.000

BETA  
DLBOFF  
SPDRK  
RV/L

PARAMETRIC VALUES  
8.000  
.000  
.000

DATA SOURCE  
DL TELV  
DATASET  
11V025  
11V015  
11V001  
11V020

.000  
55.000  
3.530

REFERENCE INFORMATION  
DL TELV  
DATASET  
11V046  
11V023  
11V017

SREF  
LREF  
BREF  
XREF  
YREF  
ZREF  
SCALE

2690.0000  
474.8100  
936.6800  
1076.6800  
1076.0000  
375.0000  
.0150

50.FT.  
IN.  
IN.  
IN.  
IN.  
IN.  
IN.

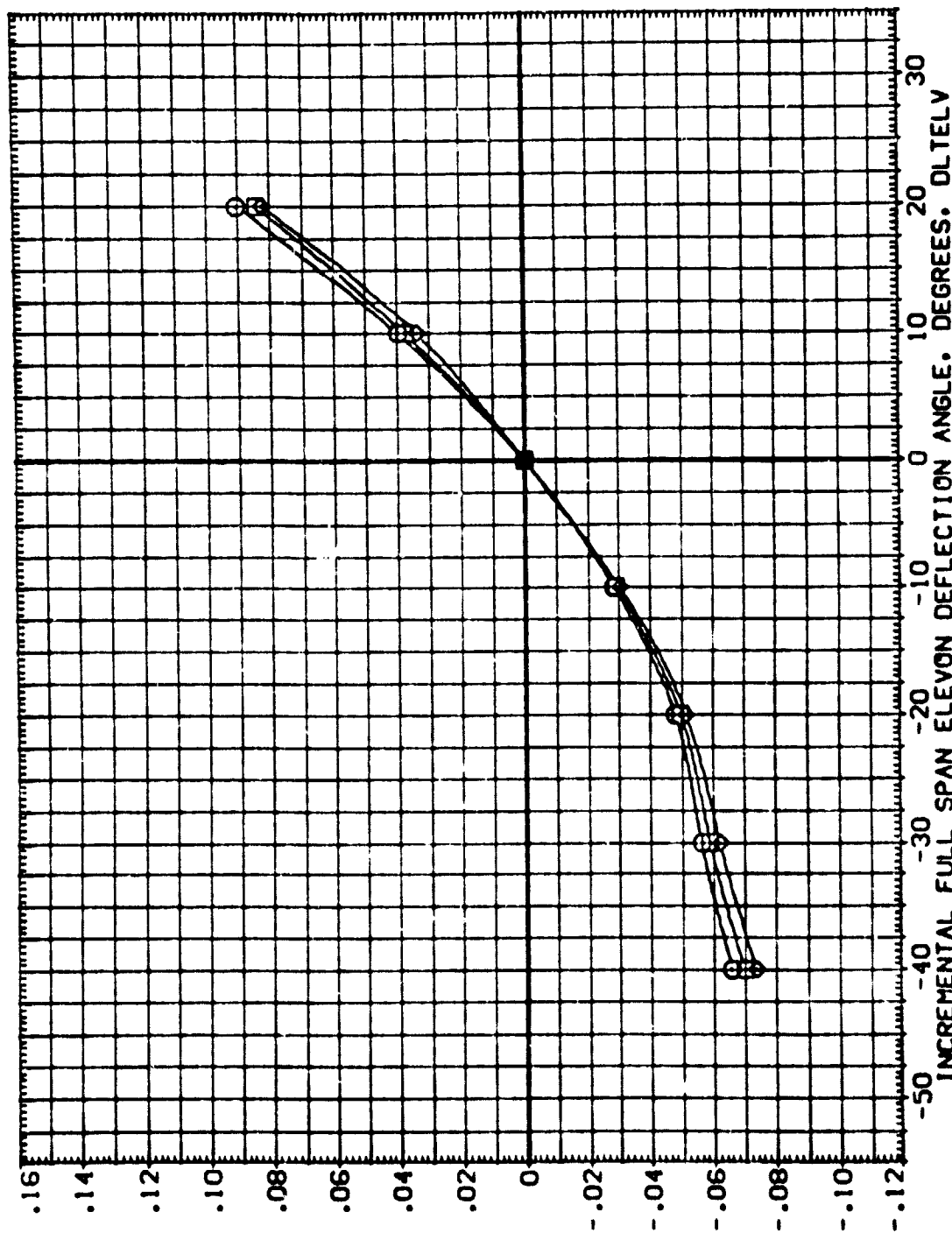


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

(ITW025)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
□ □ ◇ △ △ ▽

ALPHA  
17.000  
19.000  
21.000  
23.000  
25.000  
27.000

PARAMETRIC VALUES  
MACH 8.000  
BETA .000  
RUDDER .000  
CLBOFP .000  
SPDRBK .000  
RWL 3.530

DATA SOURCE  
DATASET ITW025  
CLTEL V -40.000  
ITW046 -20.000  
ITW023 .000  
ITW017 20.000

REFERENCE INFORMATION  
SREF 2690.0000 SQ.F.  
LREF 474.8100 IN.  
BREF 936.6800 IN.  
XREF 1076.6800 IN.  
YREF 375.0000 IN.  
ZREF 375.0000 IN.  
SCALE .0150

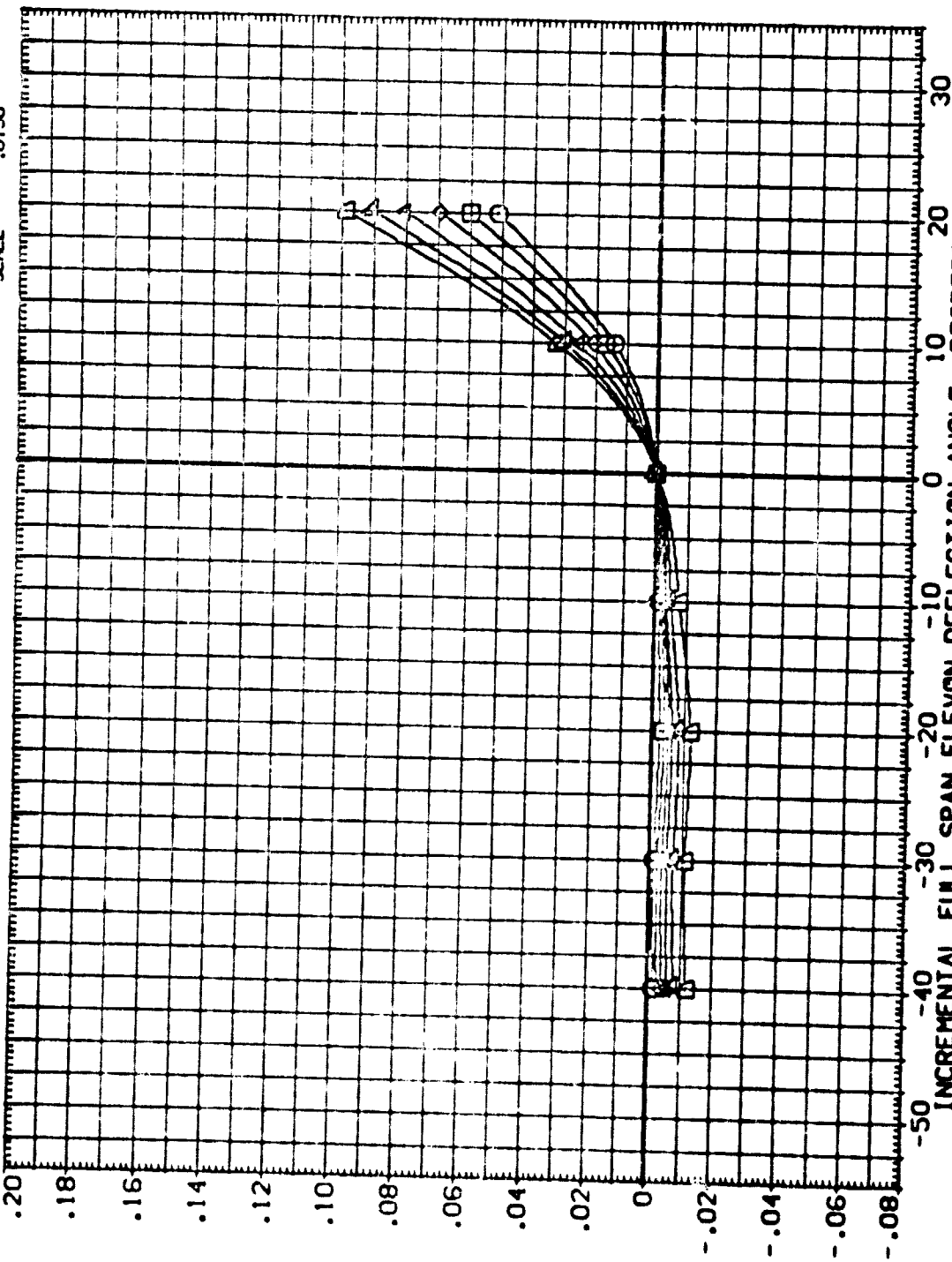


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (1TW025)

ALPHA	MACH	BETA	RUDDER	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
29.000	0.000	0.000	0.000	DLTCLP	DLTCLV	2680.0000 SQ.FT.
31.000	.000	.000	.000	SPOBRK	DLTCLV	474.8100 IN.
33.000	.000	.000	.000	RNVL	DLTCLV	936.6800 IN.
35.000	.000	.000	.000	DLTCLV	DLTCLV	1076.6800 IN.
37.000	.000	.000	.000	DLTCLV	DLTCLV	375.0000 IN.
39.000	.000	.000	.000	DLTCLV	DLTCLV	375.0000 IN.
					SCALE	.0150

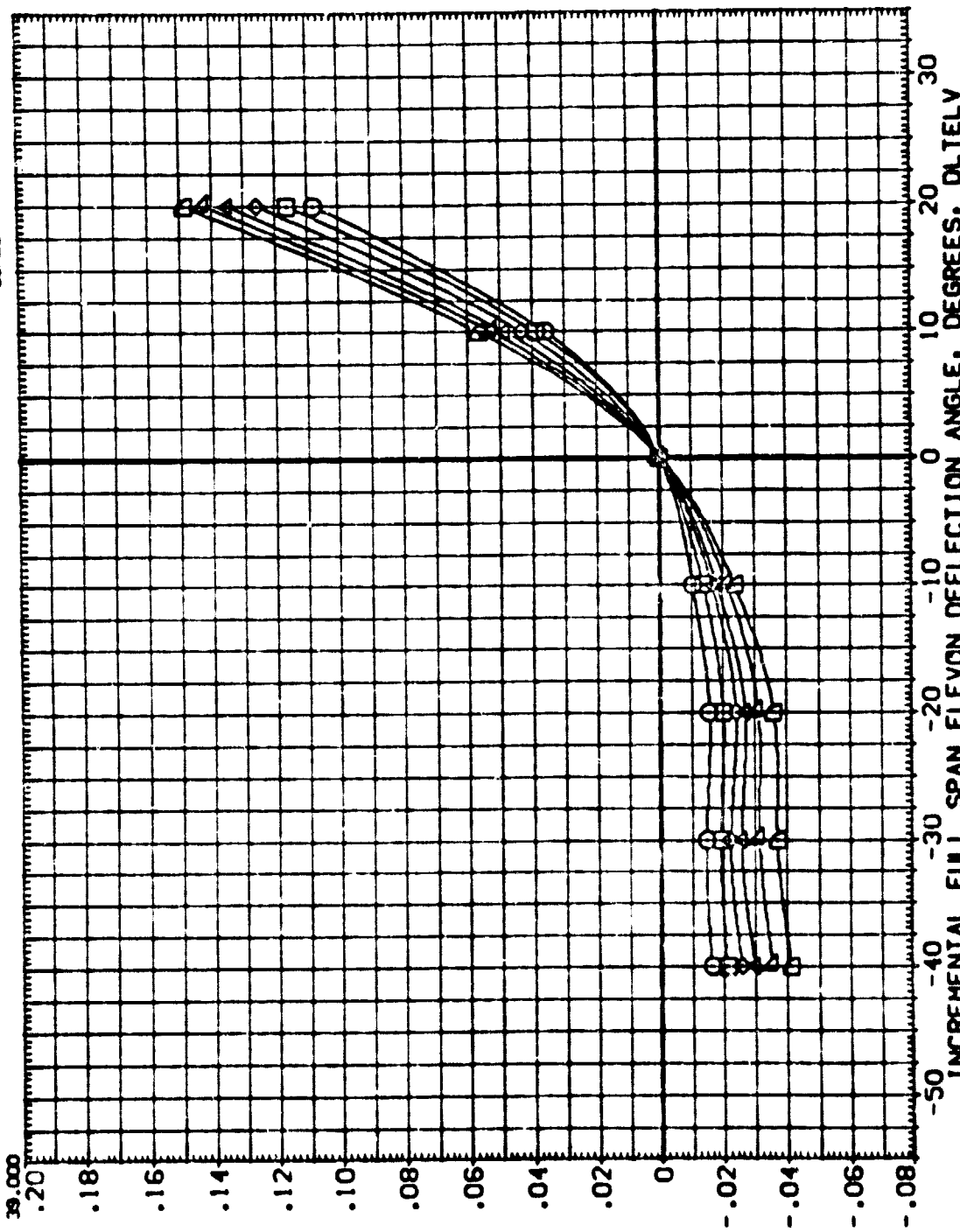


FIG. 8 INCREMENTAL EFFECTS OF ELEVON DEFLECTION





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L-0	ELV-L-1	ELV-R-1	ELV-R-0	REFERENCE INFORMATION
(CTV001)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 VII6	.000	.000	.000	.000	SREF 2690.0000 SQ.FT.
(CTV070)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 VII6	-5.000	-5.000	5.000	5.000	LREF 474.8100 IN.
(CTV024)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 VII6	-10.000	-10.000	10.000	10.000	BREF 926.6800 IN.
						XREF 1076.0000 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

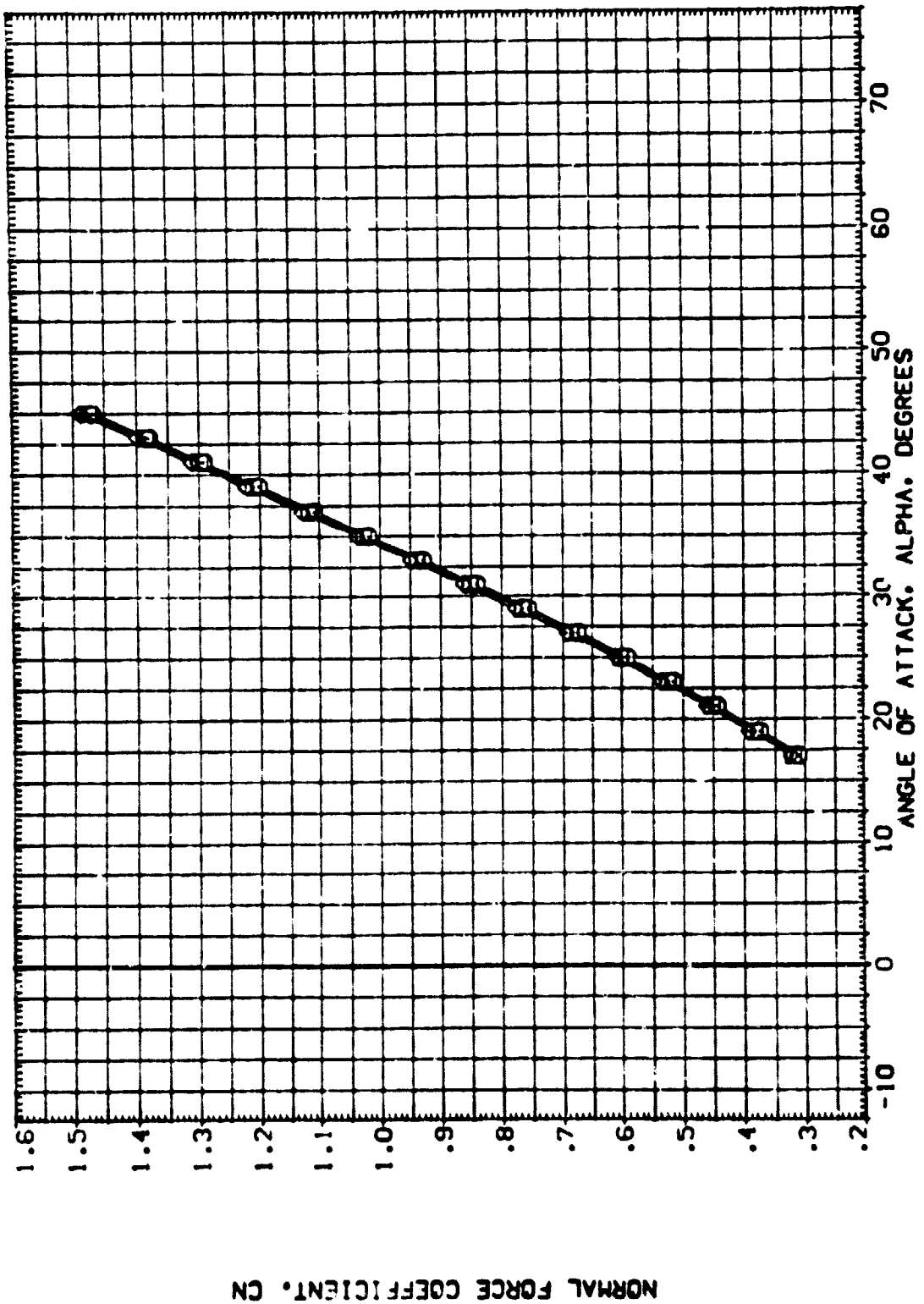


FIG. 9 FULL SPAN AILERON EFFECTIVENESS

(A)MACH = 0.00

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH(FORWARD C. G.) CLMFW

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CTV001) DAY8 B26 C9 E43 F8 H16 N28 RS V8 VII6  
 (CTV070) DAY8 B26 C9 E43 F8 H16 N28 RS V8 VII6  
 (CTV024) DAY8 B26 C9 E43 F8 H16 N28 RS V8 VII6

ELV-L0 ELV-L1 ELV-R1 ELV-R0  
 .000 .000 .000 .000  
 -5.000 -5.000 5.000 5.000  
 -10.000 -10.000 10.000 10.000

REFERENCE INFORMATION  
 SREF 2690.0000 SQ.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XTRP 1076.6800 IN.X0  
 YTRP .0000 IN.Y0  
 ZTRP 375.0000 IN.Z0  
 SCALE .0150

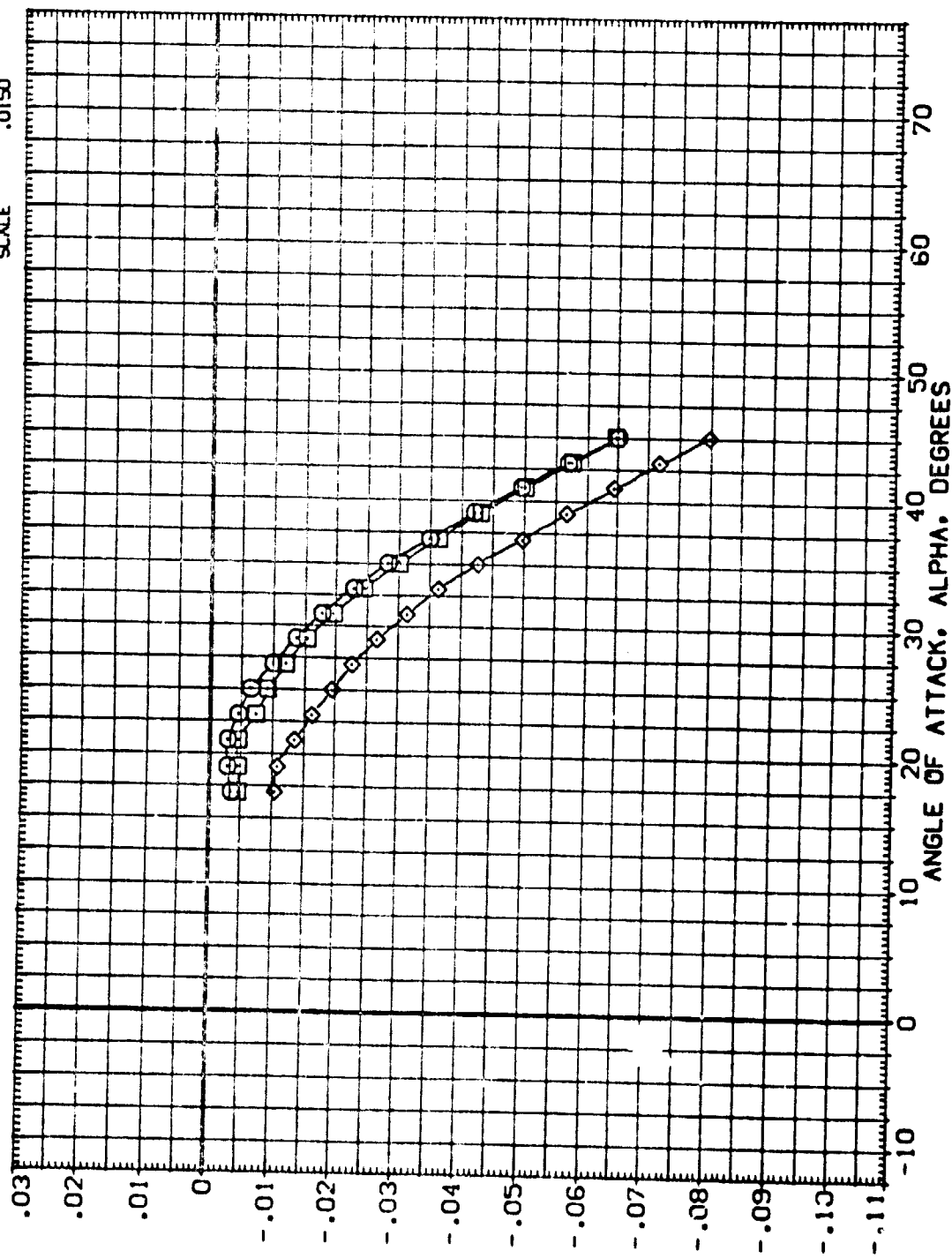


FIG. 9 FULL SPAN AILERON EFFECTIVENESS  
 (A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	SREF 2630.0000 SQ.FT.
(CTV070)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-5.000	-5.000	5.000	5.000	LREF 474.8100 IN.
(CTV024)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-10.000	-10.000	10.000	10.000	BREF 936.6800 IN.
						XREF 1076.6800 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH(AFT C. G.) CLMFT

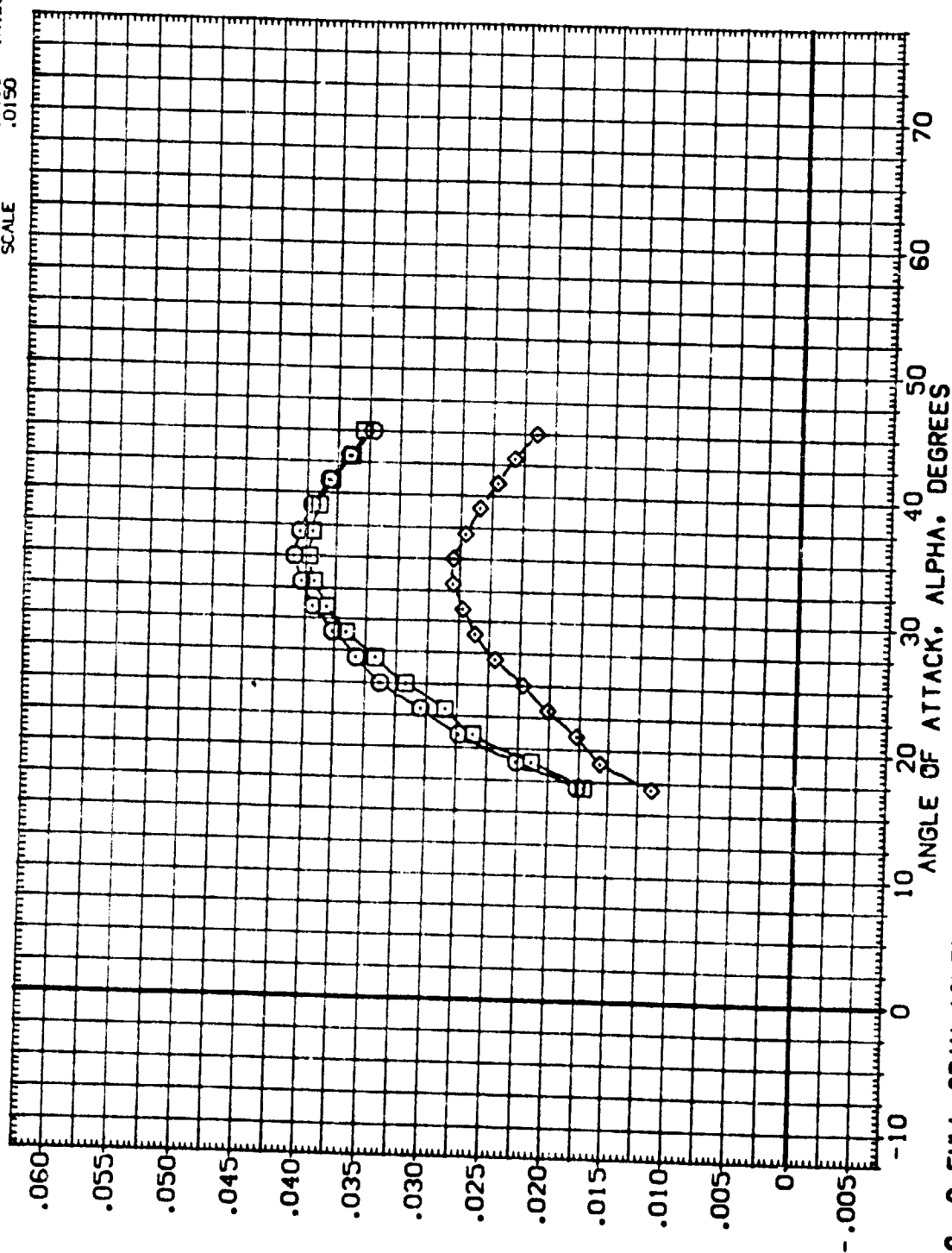


FIG. 9 FULL SPANAILERON EFFECTIVENESS

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV001)	Q479 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	.000	.000	.000	SREF 2690.0000 SQ.FT.
(CTV070)	Q479 B26 C9 E43 F8 H16 N28 R5 V8 V116	-5.000	-5.000	5.000	5.000	LREF 474.8100 IN.
(CTV024)	Q479 B26 C9 E43 F8 H16 N28 R5 V8 V116	-10.000	-10.000	10.000	10.000	XREF 936.6800 IN.X0
						YREF 1076.6800 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

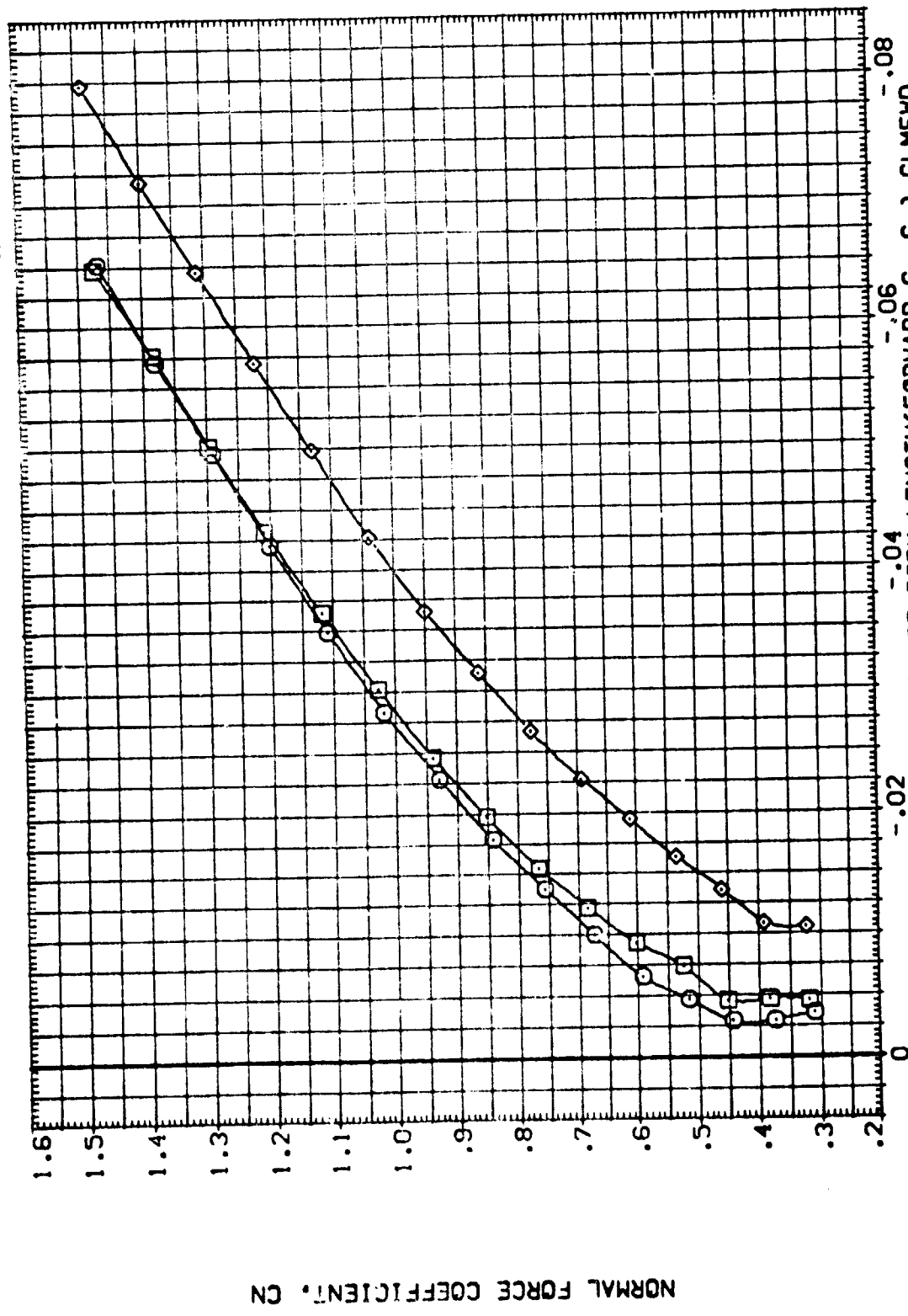


FIG. 9 FULL SPAN AILERON EFFECTIVENESS

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV001)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	.000	.000	.000	.000	SREF 2690.0000 SQ.FT.
(CTV070)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	-5.000	-5.000	5.000	5.000	LREF 474.8100 IN.
(CTV024)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	-10.000	-10.000	10.000	10.000	BREF 936.6800 IN.
						XREF 1076.6800 IN.
						YREF .0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

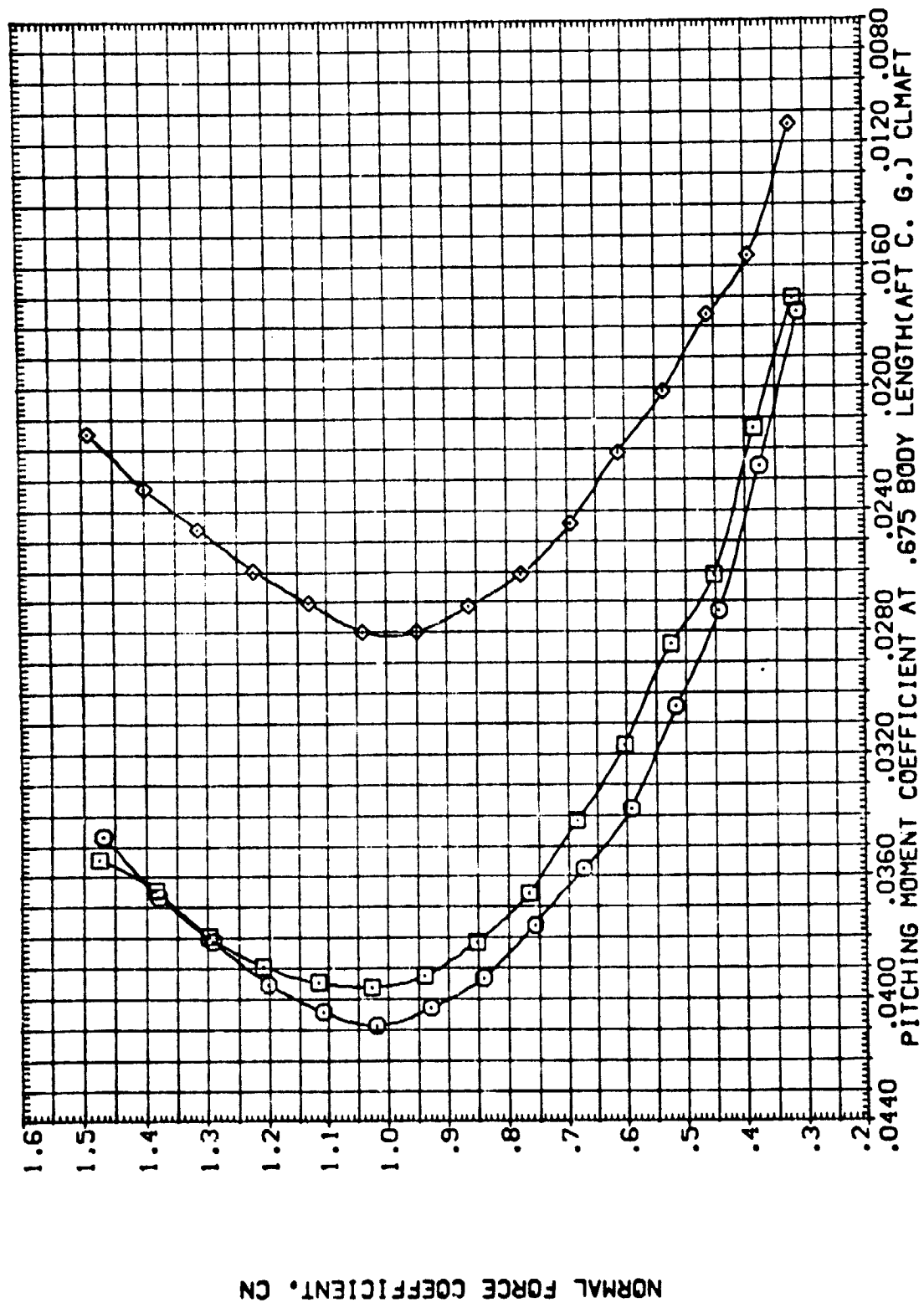


FIG. 9 FULL SPANAILERON EFFECTIVENESS

(A)MACH = 8.00

DATA SET SYMBOL: (CTV001), (CTV070), (CTV024)

CONFIGURATION DESCRIPTION: 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116, 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116, 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

ELV-L0 ELV-L1 ELV-R1 ELV-R0

REFERENCE INFORMATION: SREF 2650.000 SQ.FT., LREF 474.8100 IN., BREF 936.6800 IN., XHP 1076.6800 IN., YHP 0.000 IN., ZHP 375.0000 IN., SCALE 0.150

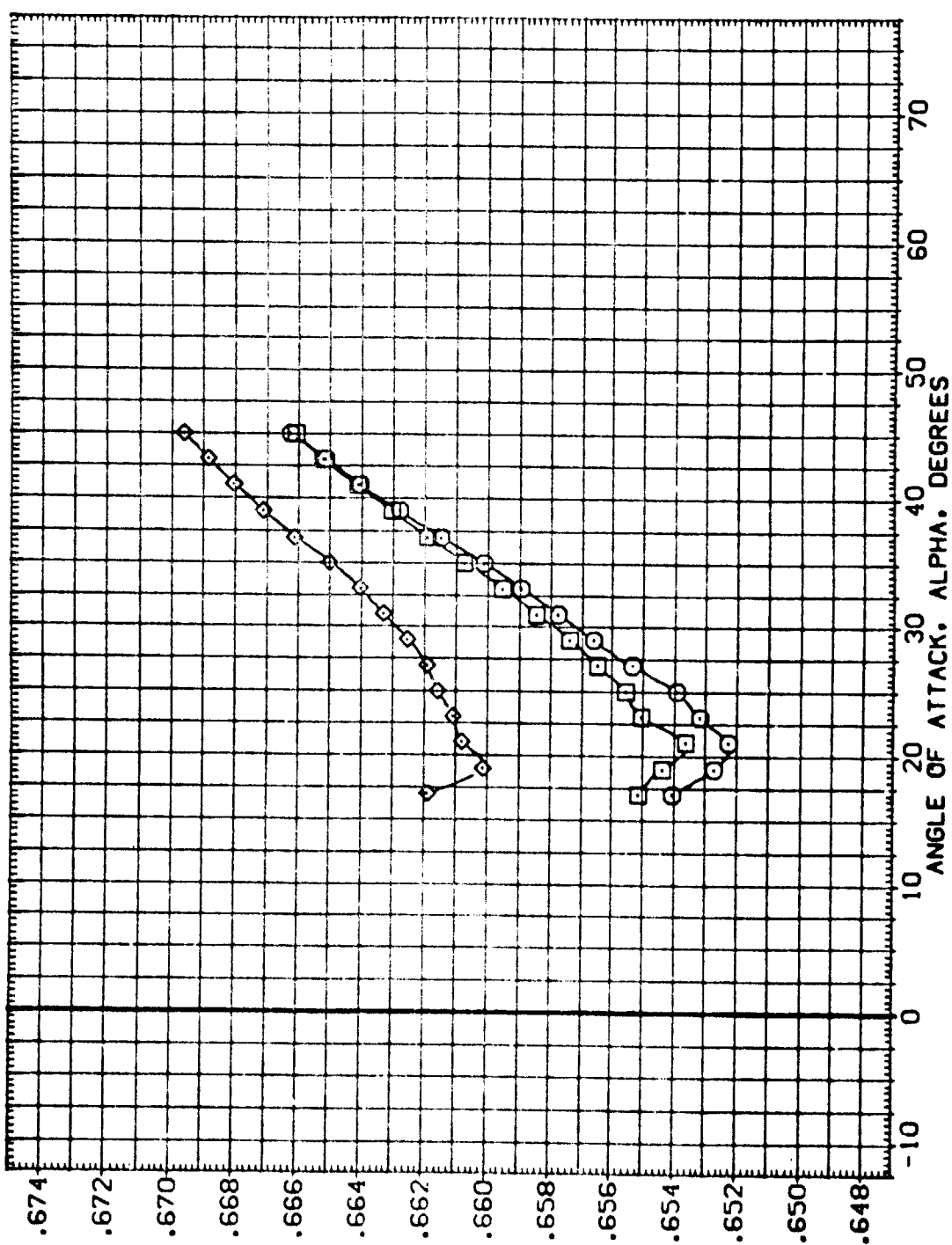


FIG. 9 FULL SPAN AILERON EFFECTIVENESS

(M)MACH = 8.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELV-L0		ELV-L1		ELV-R1		ELV-R0		REFERENCE INFORMATION	
(C1V001)	Q	0A79	B26	C9	E43	F8	M16	N28	R5	V8	V116	SREF	2690.0000
(C1V070)	Q	0A79	B26	C9	E43	F8	M16	N28	R5	V8	V116	LREF	474.8100
(C1V024)	Q	0A79	B26	C9	E43	F8	M16	N28	R5	V8	V116	BREF	936.6800
												XTRP	1076.6800
												YTRP	375.0000
												ZTRP	375.0000
												SCALE	.0150

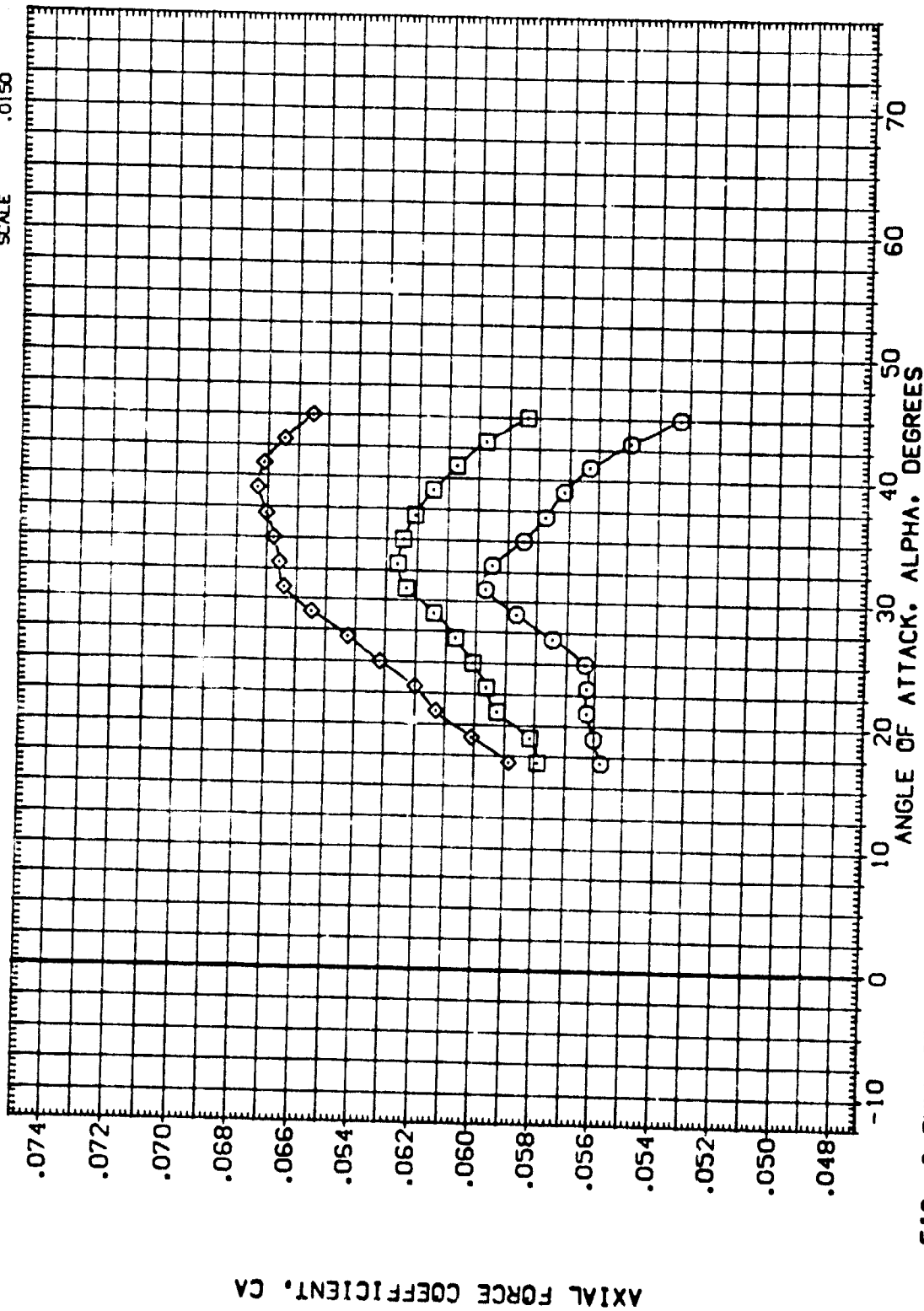


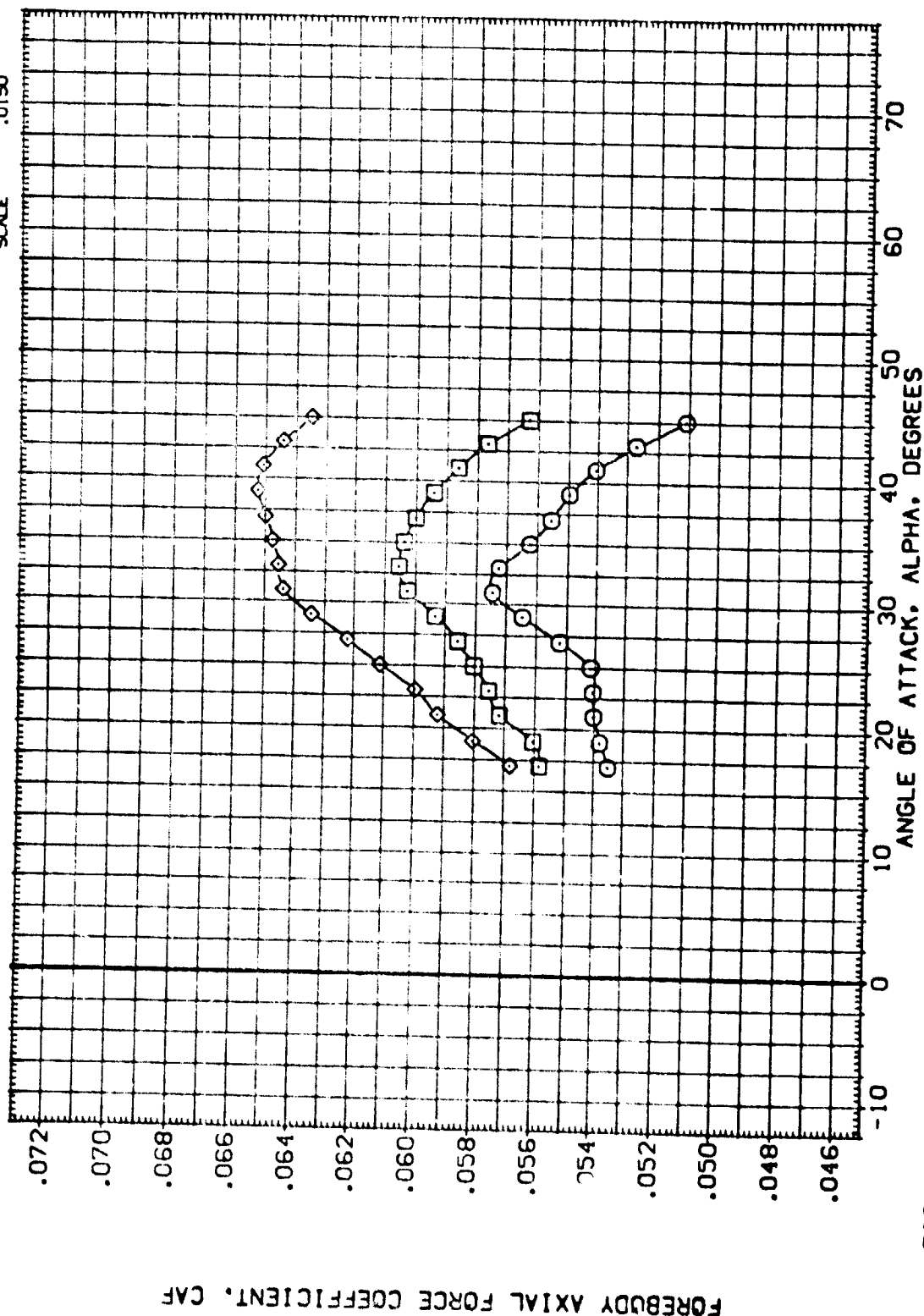
FIG. 9 FULL SPAN AILERON EFFECTIVENESS

(A)MACH = 8.00



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ELV-L0    ELV-L1    ELV-R1    ELV-R0    REFERENCE INFORMATION

(CTV0011)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	.000	.000	.000	SREF	2690.0000	50. FT.
(CTV070)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	-5.000	-5.000	5.000	5.000	LREF	474.8100	IN.
(CTV024)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	-10.000	-10.000	10.000	10.000	BREF	936.6800	IN.
						WREF	1076.6800	IN.
						YREF	.0000	IN.
						ZREF	375.0000	IN.
						SCALE	.0150	



FOREBODY AXIAL FORCE COEFFICIENT, CAF

FIG. 9 FULL SPANAILERON EFFECTIVENESS

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(C1V001)    BA79 B26 C9 E43 F8 M16 N28 RS V8 V116

(C1V070)    BA79 B26 C9 E43 F8 M16 N28 RS V8 V116

(C1V024)    BA79 B26 C9 E43 F8 M16 N28 RS V8 V116

ELV-L0    ELV-L1    ELV-R1    ELV-R0

.000    .000    .000    .000

-5.000    -5.000    5.000    5.000

-10.000    -10.000    10.000    10.000

REFERENCE INFORMATION

SREF    2690.0000    SQ.FT.

LREF    474.8100    IN.

BREF    936.6800    IN.

XPRP    1076.6800    IN.

YPRP    .0000    IN.

ZPRP    375.0000    IN.

SCALE    .0150

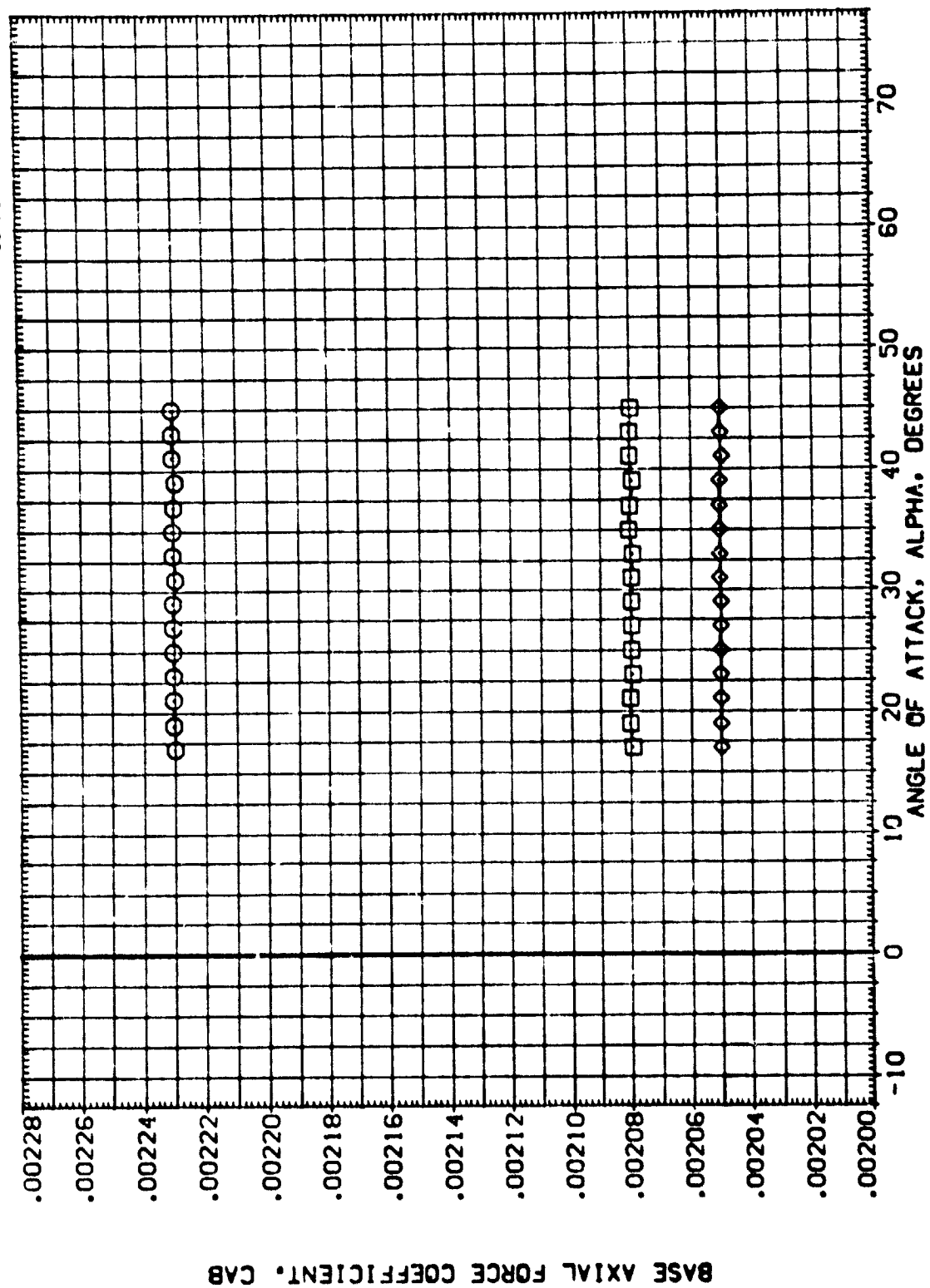


FIG. 9 FULL SPANAILERON EFFECTIVENESS

(A)MACH = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CIV021) 0 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116  
 (CIV022) 0 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116  
 (CIV024) 0 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116

ELV-L0 ELV-L1 ELV-R1 ELV-R0  
 .000 .000 .000 .000  
 -5.000 -5.000 5.000 5.000  
 -10.000 -10.000 10.000 10.000

REFERENCE INFORMATION  
 CREF 2630.0000 SQ.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XREF 1076.0000 IN.  
 YREF 375.0000 IN.  
 ZREF 0.0150 IN.

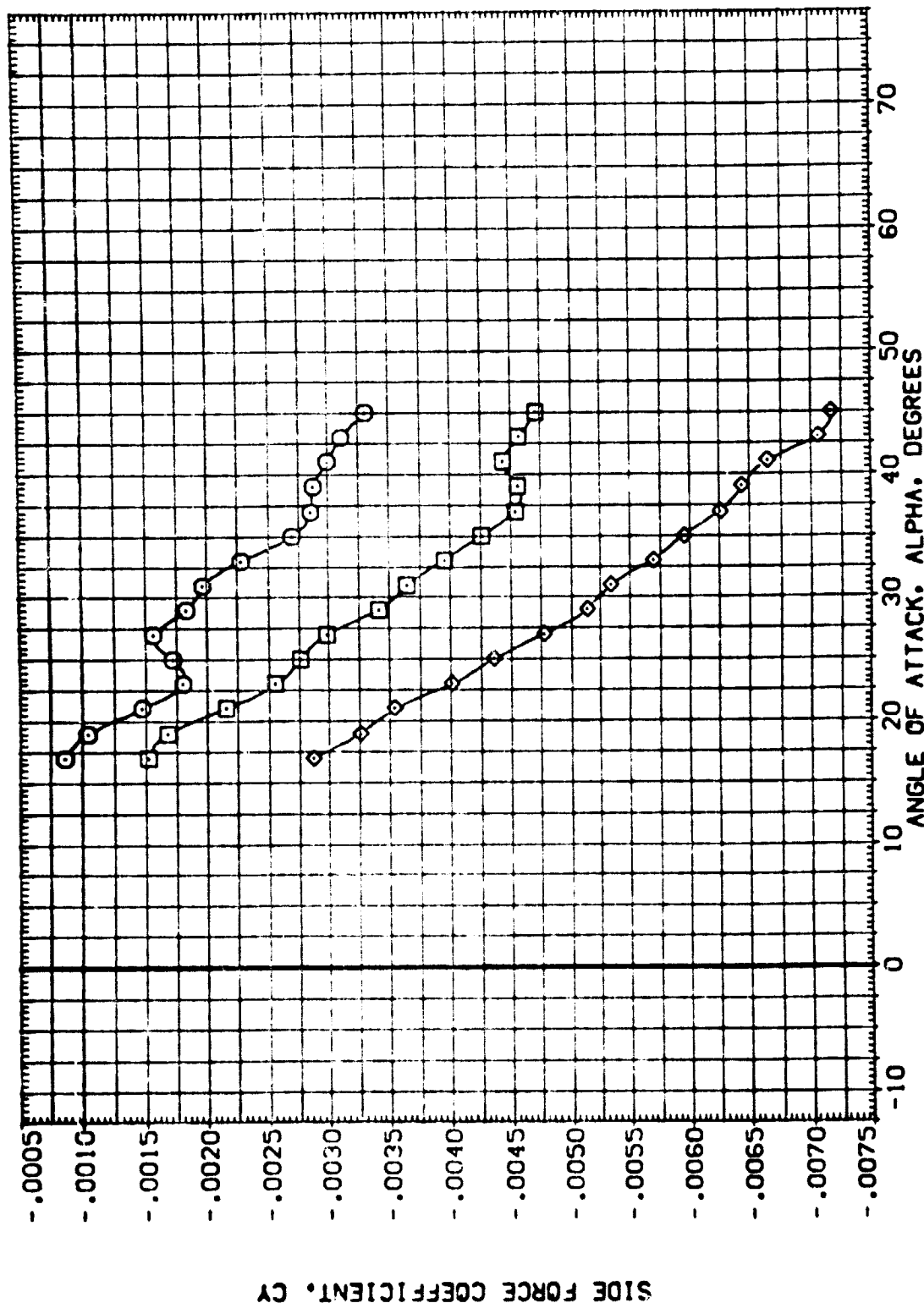


FIG. 9 FULL SPAN AILERON EFFECTIVENESS

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(A1W001)	0A79 B26 C9 E43 F8 M16 N28 PS V8 V116	0.000	0.000	0.000	0.000	SREF 2650.0000 SQ.FT.
(A1W070)	0A79 B26 C9 E43 F8 M16 N28 PS V8 V116	-5.000	-5.000	5.000	5.000	LREF 474.8100 IN.
(A1W024)	0A79 B26 C9 E43 F8 M16 N28 PS V8 V116	-10.000	-10.000	10.000	10.000	BREF 936.6900 IN.
						XREF 1076.6900 IN.
						YREF 0.0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

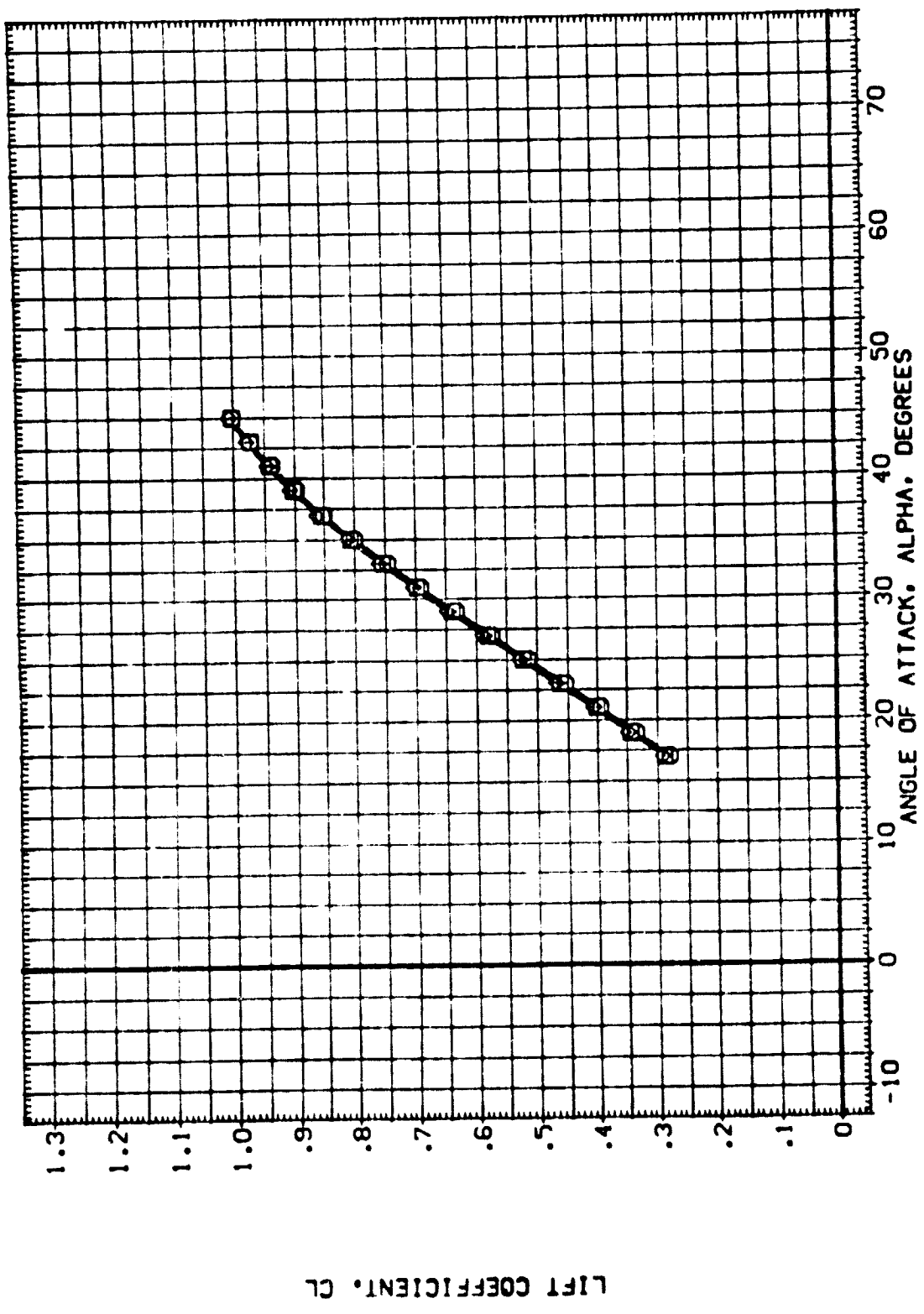


FIG. 9 FULL SPAN AILERON EFFECTIVENESS

(A)MACH = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ATV001) Q DAY8 B26 C9 E43 F8 M16 N28 R5 V8 VII6  
 (ATV070) Q DAY8 B26 C9 E43 F8 M16 N28 R5 V8 VII6  
 (ATV024) Q DAY8 B26 C9 E43 F8 M16 N28 R5 V8 VII6

ELV-L0 ELV-L1 ELV-R1 ELV-R0 REFERENCE INFORMATION  
 .000 .000 .000 .000 SREF 2690.0000 50.FT.  
 -5.000 -5.000 5.000 5.000 LREF 474.8100 IN.  
 -10.000 -10.000 10.000 10.000 BREF 936.6900 IN.  
 XREF 1076.6900 IN.X0  
 YREF .0000 IN.Y0  
 ZREF 375.0000 IN.Z0  
 SCALE .0150

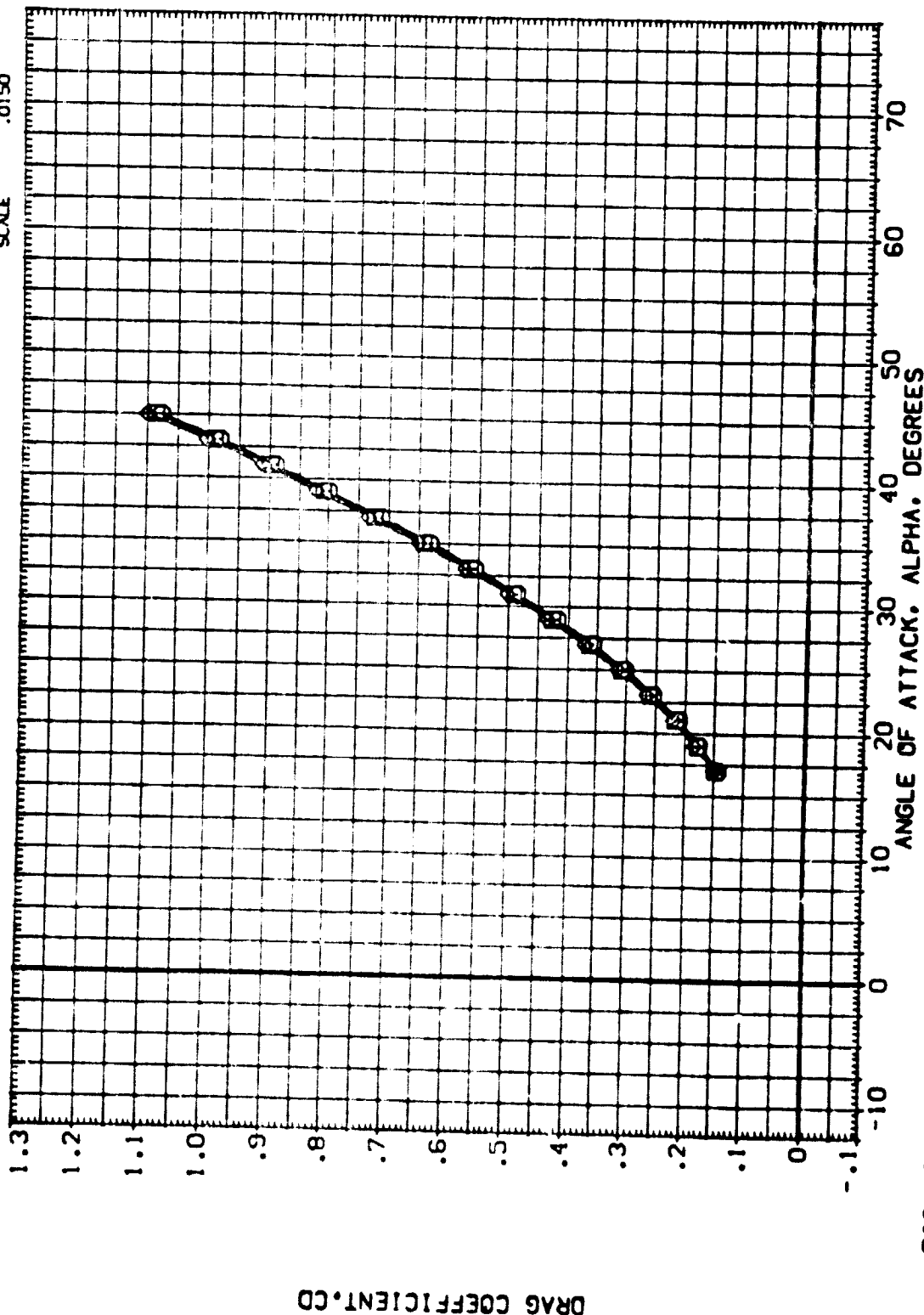


FIG. 9 FULL SPAN AILERON EFFECTIVENESS

(A)MACH = 8.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(ATW001)	0479 826 C9 E43 F8 M16 N28 R5 V8 V116	0.000	0.000	0.000	0.000	2690.0000 SQ.FT.
(ATW070)	0479 826 C9 E43 F8 M16 N28 R5 V8 V116	-5.000	-5.000	5.000	5.000	474.8100 IN.
(ATW024)	0479 826 C9 E43 F8 M16 N28 R5 V8 V116	-10.000	-10.000	10.000	10.000	536.6800 IN.
						1076.6800 IN.
						375.0000 IN.
						375.0000 IN.
						SCALE .0150

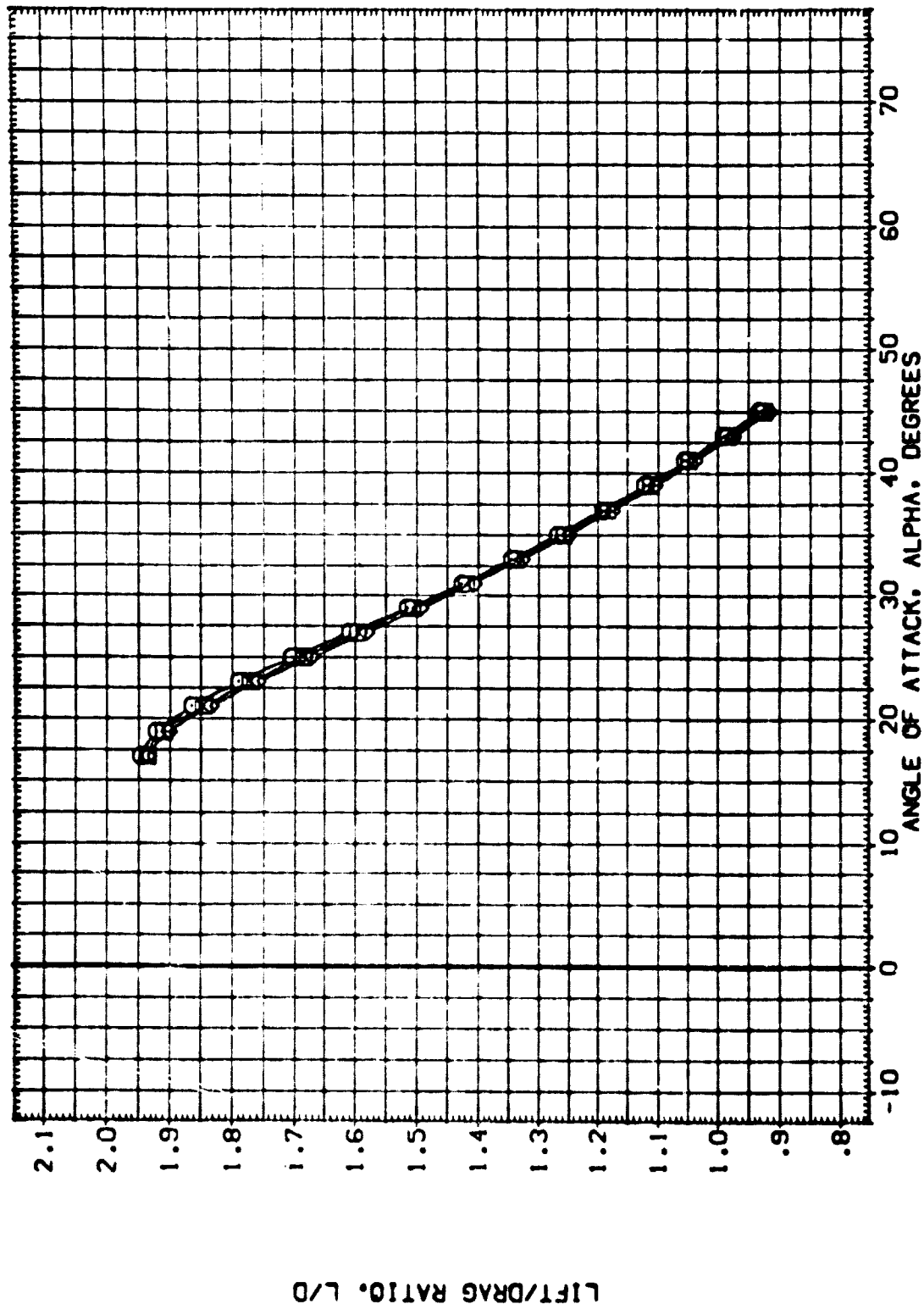
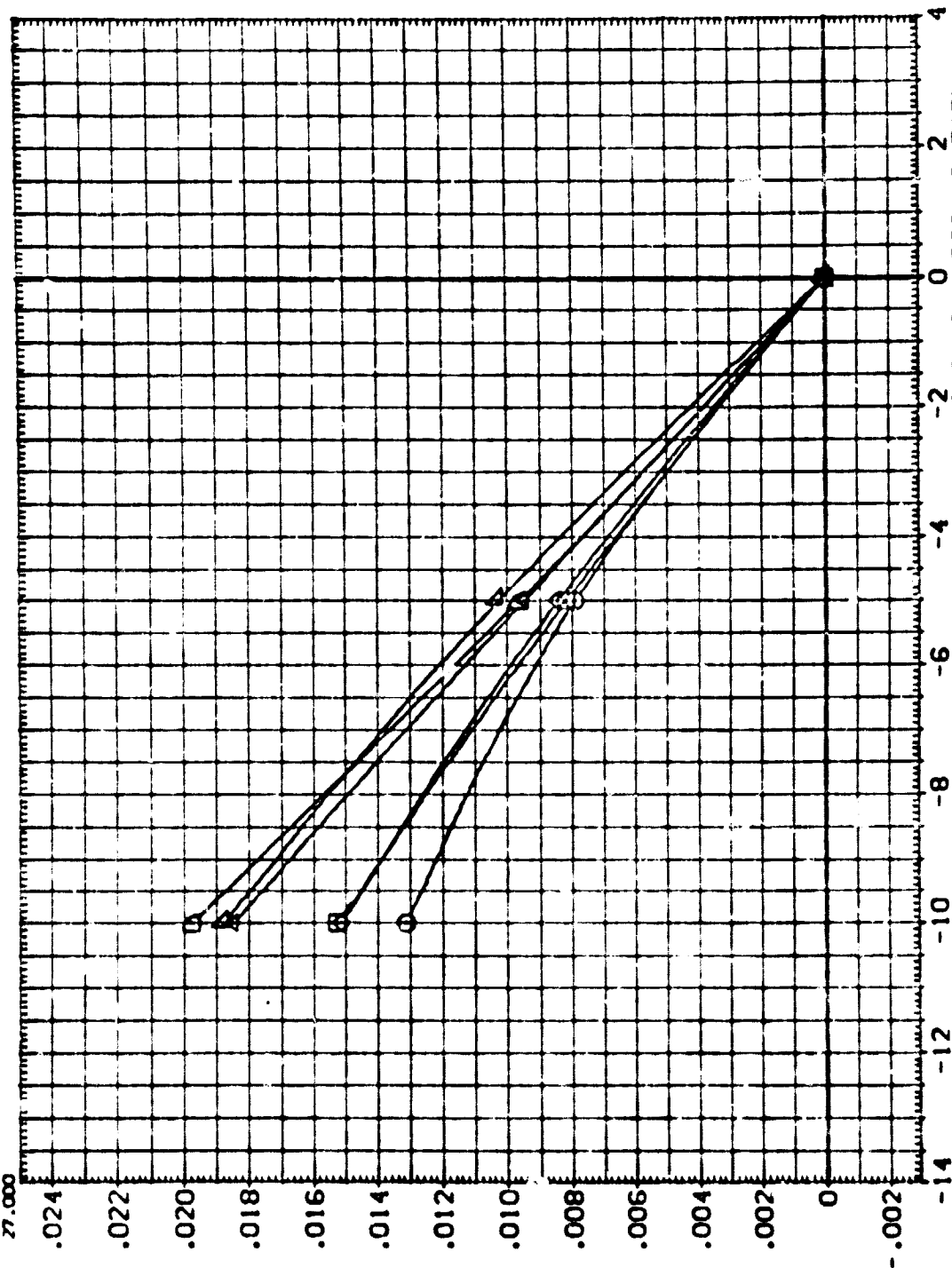


FIG. 9 FULL SPAN AILERON EFFECTIVENESS

(A)MACH = 8.00

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (JTW024)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
17.000	0.000	DL REF	.000 DATASET	2690.0000 SQ.FT.
19.000	.000	SPOORX	55.000 JTW024	474.8100 IN.
21.000	.000	RVL	3.530 JTW001	936.6800 IN.
23.000				1076.6800 IN.
25.000				375.0000 IN.
27.000				375.0000 IN.
				SCALE .0150



INCREMENTAL NORMAL FORCE COEFFICIENT, DLTN

FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (JTW024)

SYMBOL  
 ▽  
 ◊  
 ◻  
 ◈  
 △  
 ▴

ALPHA  
 29.000  
 31.000  
 33.000  
 35.000  
 37.000  
 39.000

MACH  
 8.000  
 .000  
 .000  
 .000  
 .000  
 .000

BETA  
 8.000  
 .000  
 .000  
 .000  
 .000  
 .000

RUDDER  
 8.000  
 .000  
 .000  
 .000  
 .000  
 .000

PARAMETRIC VALUES  
 DLEDFP  
 SPDRK  
 RVL

.000  
 55.000  
 3.530

.000  
 .000  
 .000

DATA SOURCE  
 DATASET  
 JTW070

DLTARN  
 -10.000  
 .000

DLTARN  
 -5.000

REF  
 REF  
 REF  
 REF  
 REF  
 REF

2690.0000  
 474.8100  
 936.6800  
 1076.6800  
 375.0000  
 .0150

REFERENCE INFORMATION  
 59. FT.  
 IN.  
 IN.  
 IN.  
 IN.  
 IN.

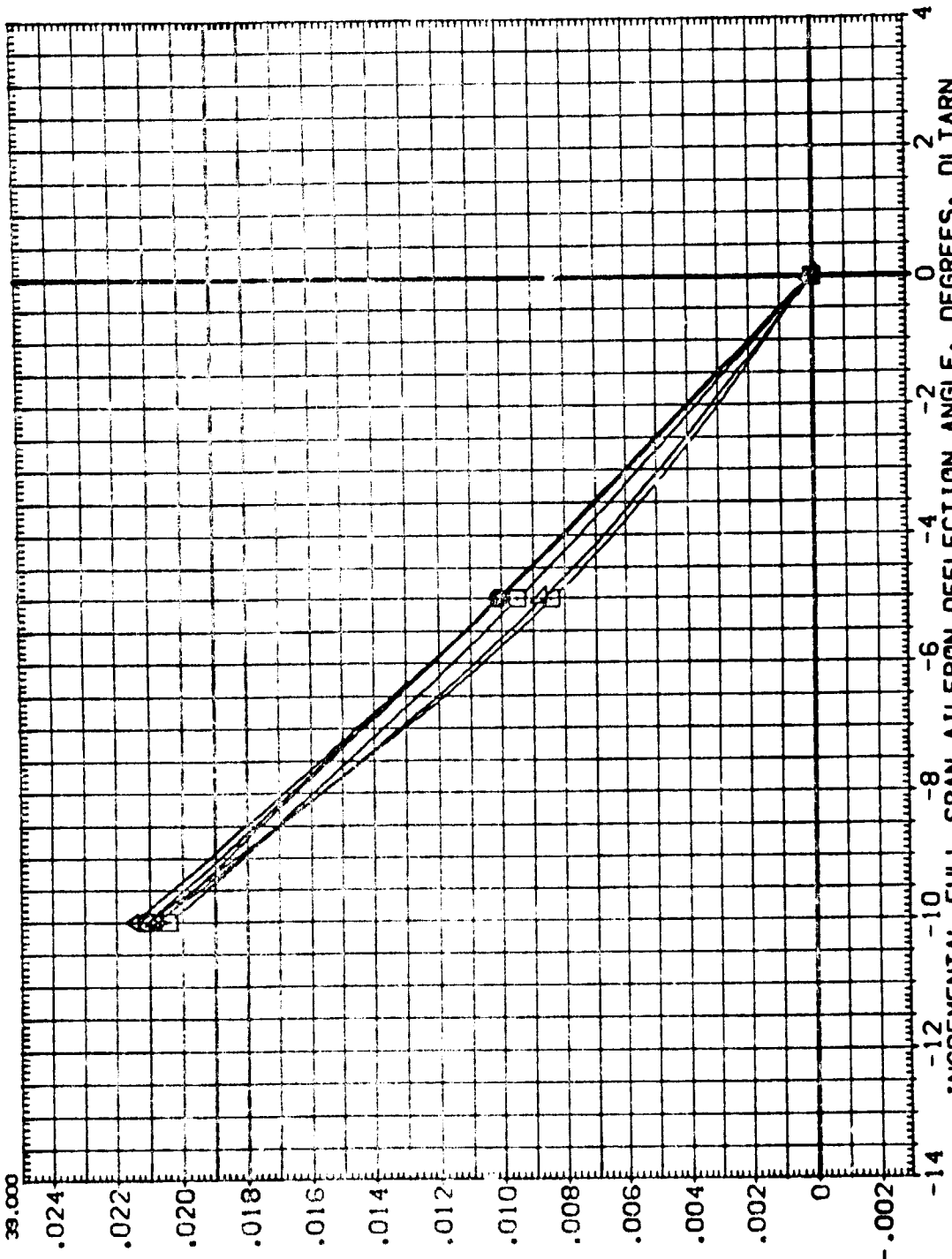


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

QA79 B26 C9 E43 F8 M16 N28 R5 V8 W116

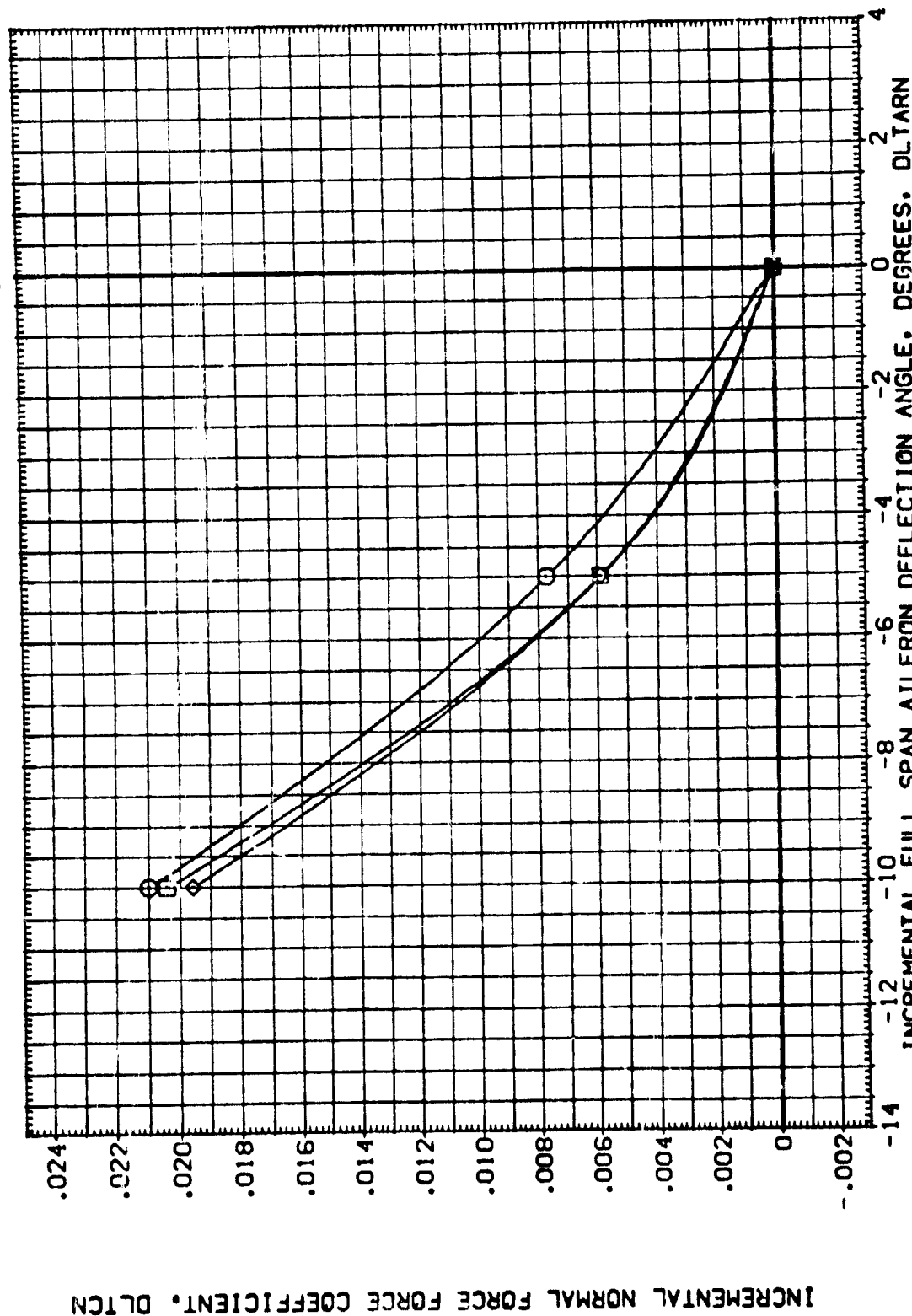
[illegible]

FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116

(JTW024)

SYMBOL  
○ □ ◇ △ ▽ ▿

ALPHA  
17.000  
19.000  
21.000  
23.000  
25.000  
27.000

MACH  
BETA  
RUDDER

PARAMETRIC VALUES  
8.000 DLBOFP  
.000 SPDBRK  
.000 RVUL

.000 DATASET  
55.000 JTW024  
3.530 JTW001

DATA SOURCE  
DLTARN  
-10.000

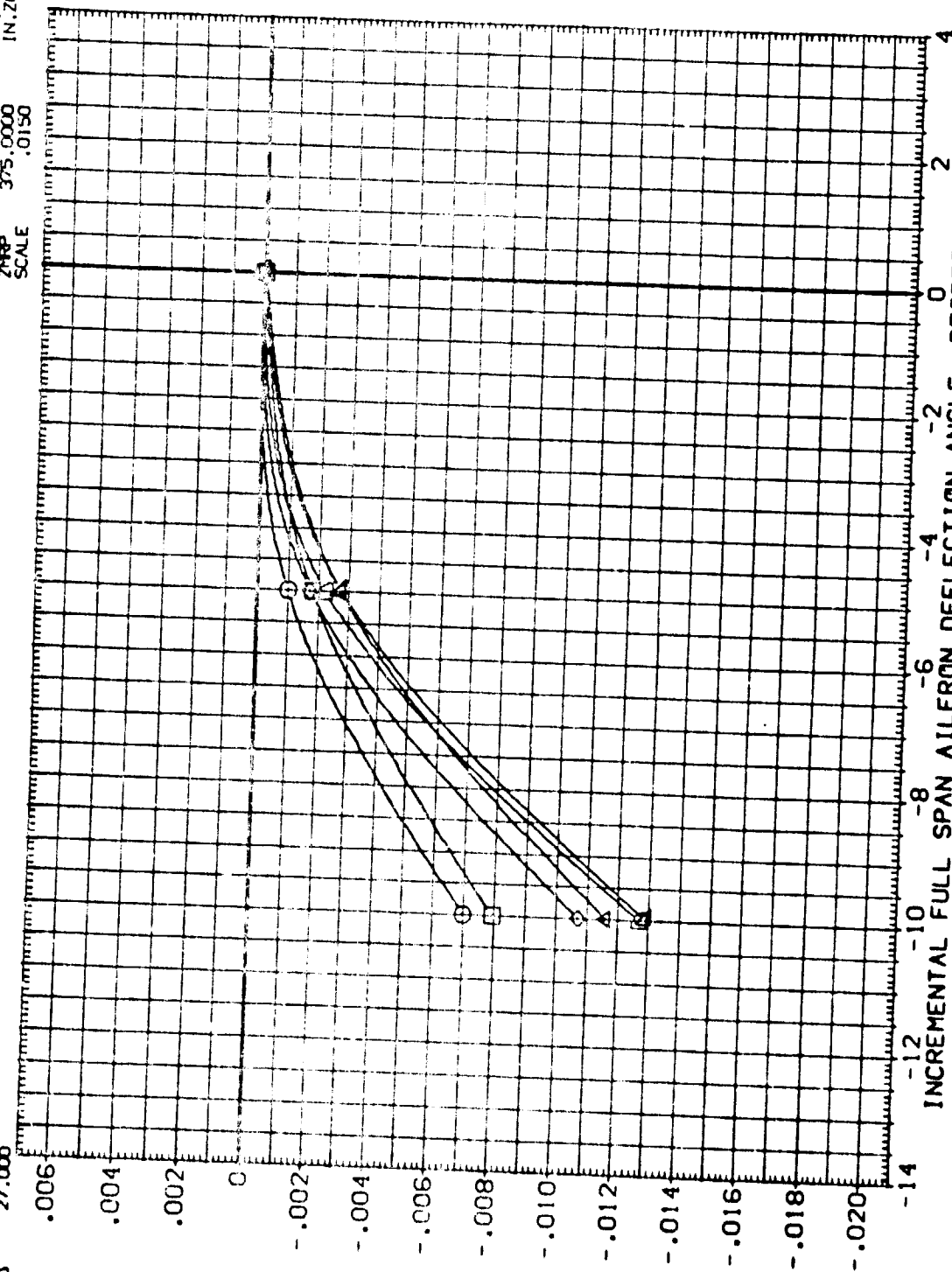
DATASET  
JTW070

DLTARN  
-5.000

SREF  
LREF  
XREF  
YREF  
ZREF

2690.0000  
474.8100  
936.6800  
1076.6800  
375.0000  
SCALE .0150

REFERENCE INFORMATION  
SQ.FT.  
IN.  
IN.  
IN.  
IN.  
IN.



INCREMENTAL PITCHING MOMENT COEFFICIENT (FWD. C.G.) DLTICM

FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

(JTW024)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
▽  
◇  
◇  
◇  
◇  
◇

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000  
39.000

W/D1  
BETA  
RUDDER

PARAMETRIC VALUES  
8.000  
.000  
.000  
0.000  
0.000  
0.000

DATA SOURCE  
DLTARN  
DLTARN  
DLTARN  
DLTARN  
DLTARN  
DLTARN

CATASET  
JTW070  
JTW070  
JTW070  
JTW070  
JTW070  
JTW070

REFERENCE INFORMATION  
2050.0000  
474.8100  
936.6800  
1076.6800  
375.0000  
375.0000  
SCALE .0150

INCREMENTAL PITCHING MOMENT COEFFICIENT (FWD. C.G.) DLTICMF

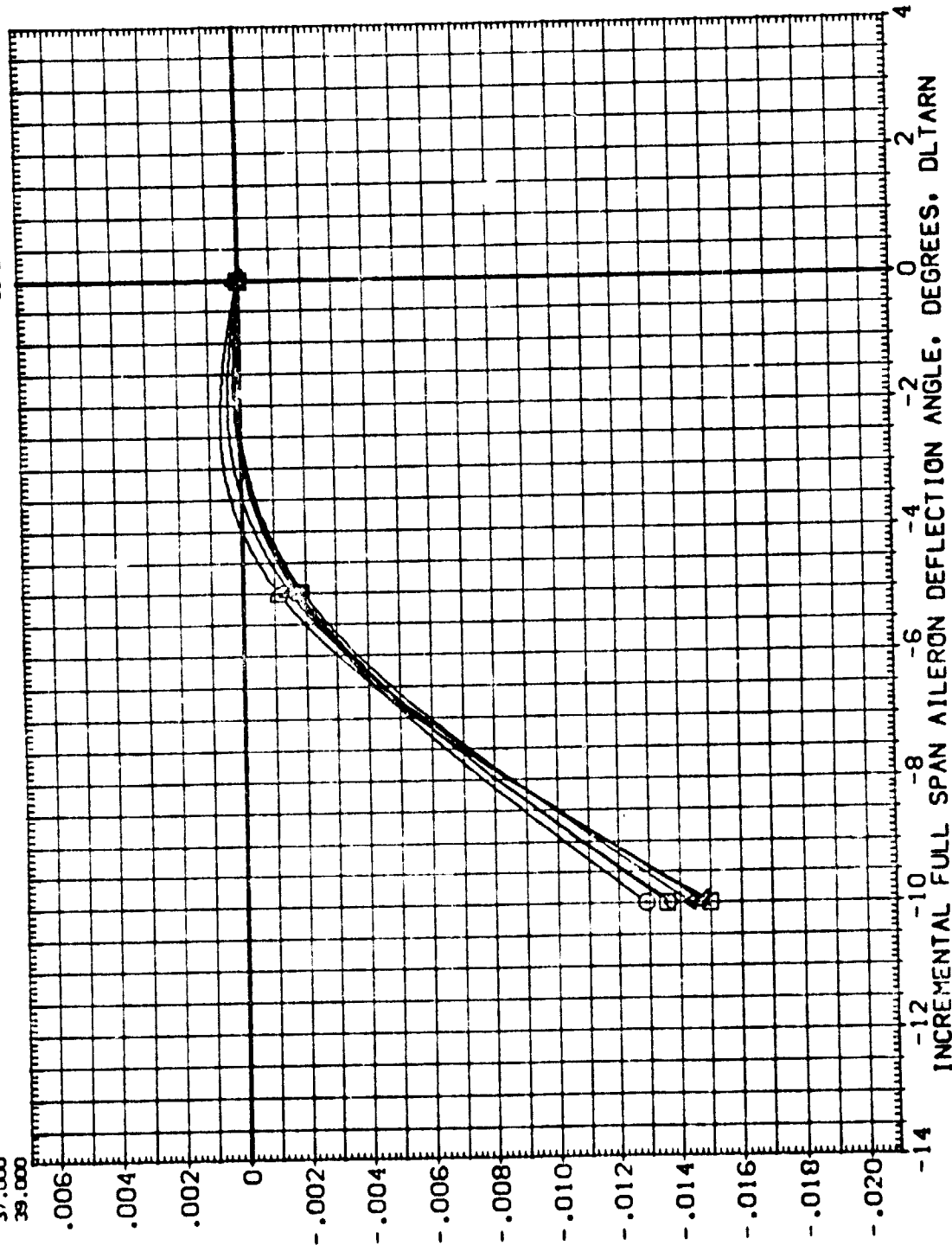


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (JTW024)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLTARN	REFERENCE INFORMATION
□	41.000	8.000	DLBOFP	.000	DLTARN	SREF	2690.0000 SQ.FT.
□	43.000	BETA	SPORBK	55.000	JTW024	LREF	474.8100 IN.
◇	45.000	ALUDER	RVL	3.530	JTW001	SREF	936.8800 IN.
						XPRP	1076.6800 IN.XD
						YPRP	.0000 IN.YD
						ZPRP	375.0000 IN.ZD
						SCALE	.0150

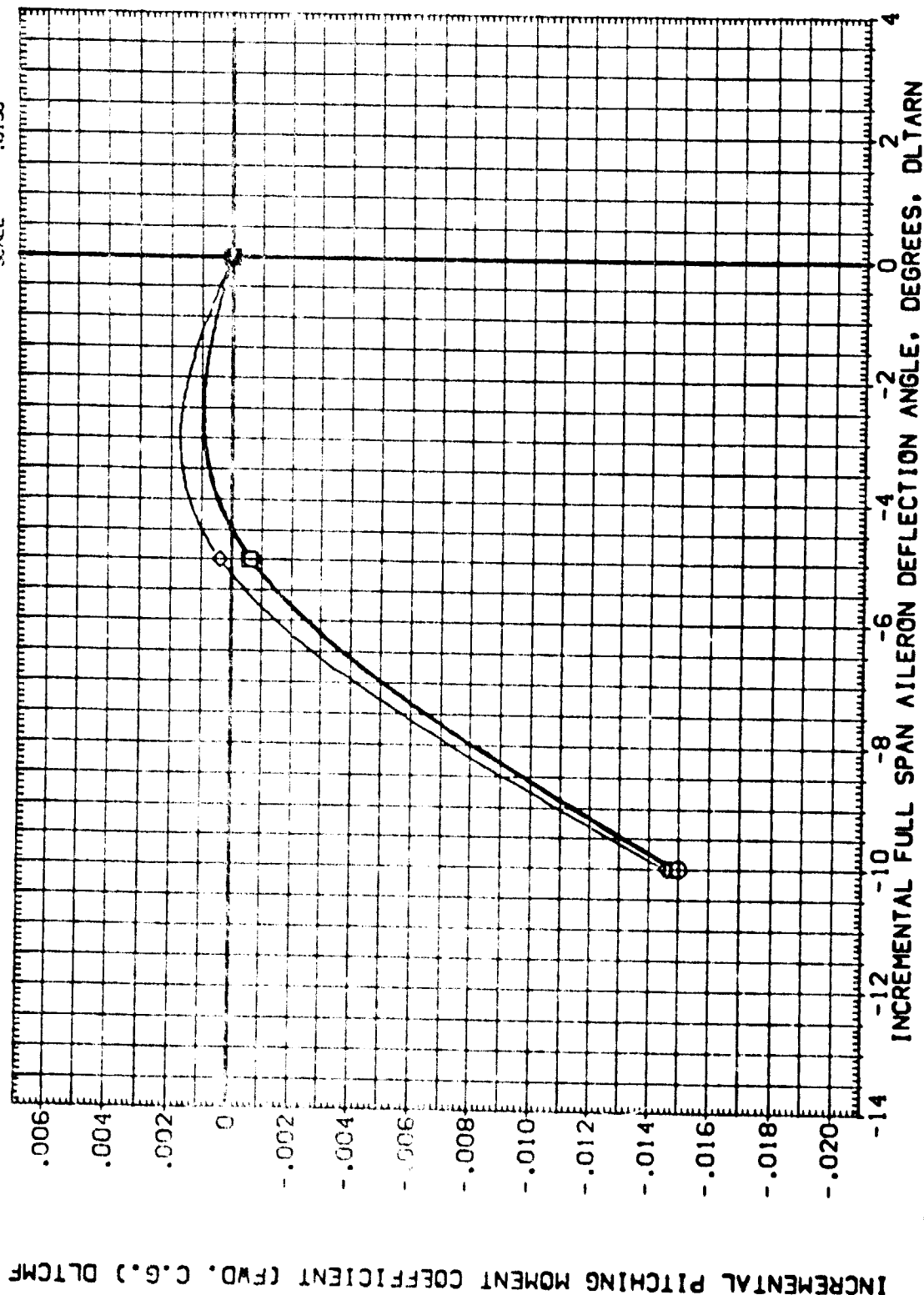


FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION



0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (JTW024)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	29.000	8.000	CLBDFP	.000 DATASET JTW024	2690.0000 SQ.FT.
◇	31.000	.000	SPORBK	55.000 JTW024	474.8100 IN.
△	30.000	.000	RNVL	3.530 JTW001	936.6800 IN.
▽	35.000				1075.8500 IN.X3
▽	37.000				1140 IN.13
▽	39.000				375.0000 IN.20
					SCALE .0150

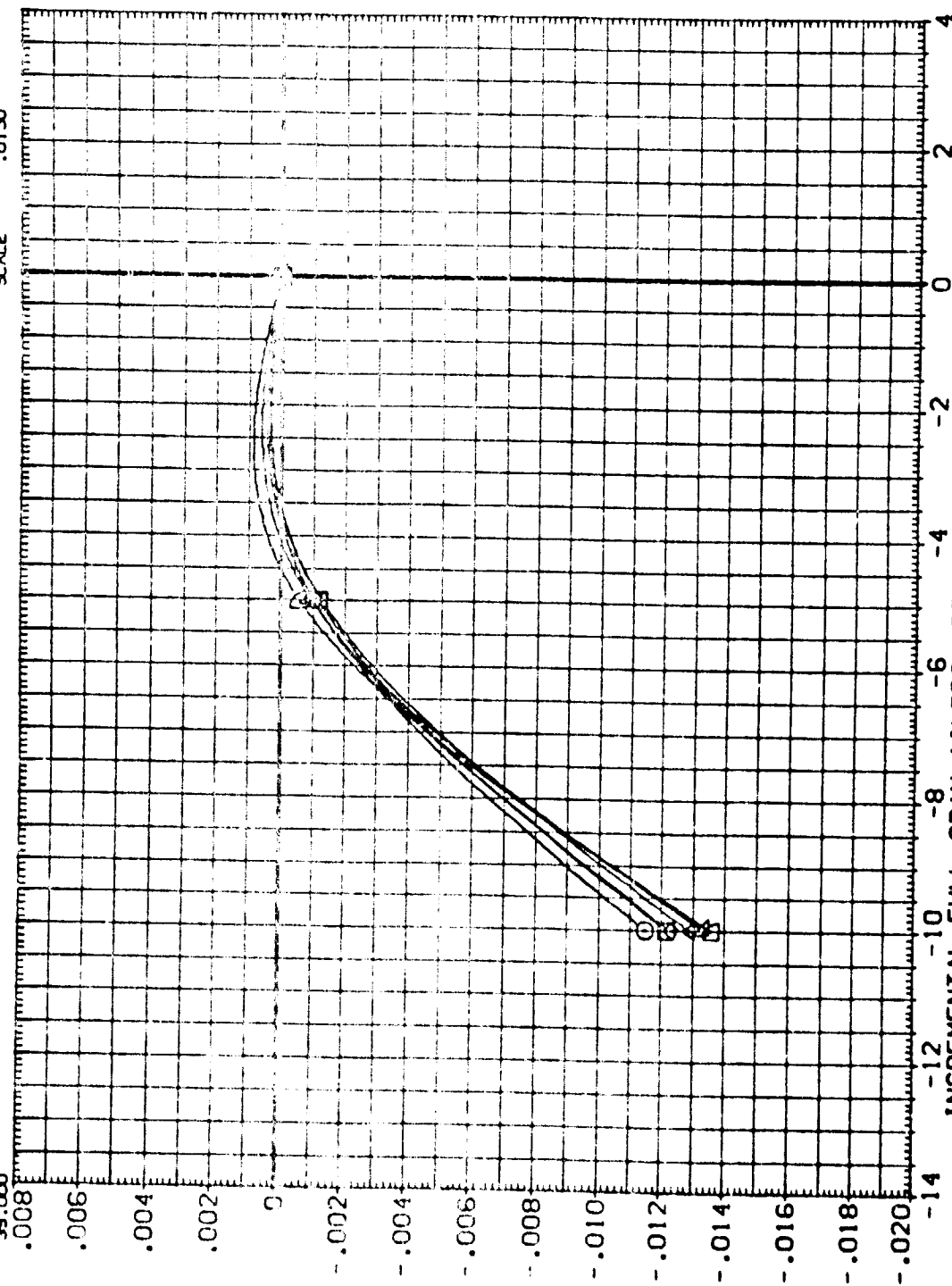


FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION

(JTWD24)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
□  
◇

ALPHA  
41.000  
43.000  
45.000

PARAMETRIC VALUES  
MACH 8.000  
BETA .000  
RUDDER .000

DATA SOURCE  
DATASET  
JTWD24  
3.530

DLTARN  
-10.000  
.000

REFERENCE INFORMATION  
SREF 2690.0000  
LREF 474.8100  
BREF 936.6800  
XMRP 1076.6800  
YMRP .0000  
ZMRP 375.0000  
SCALE .0150

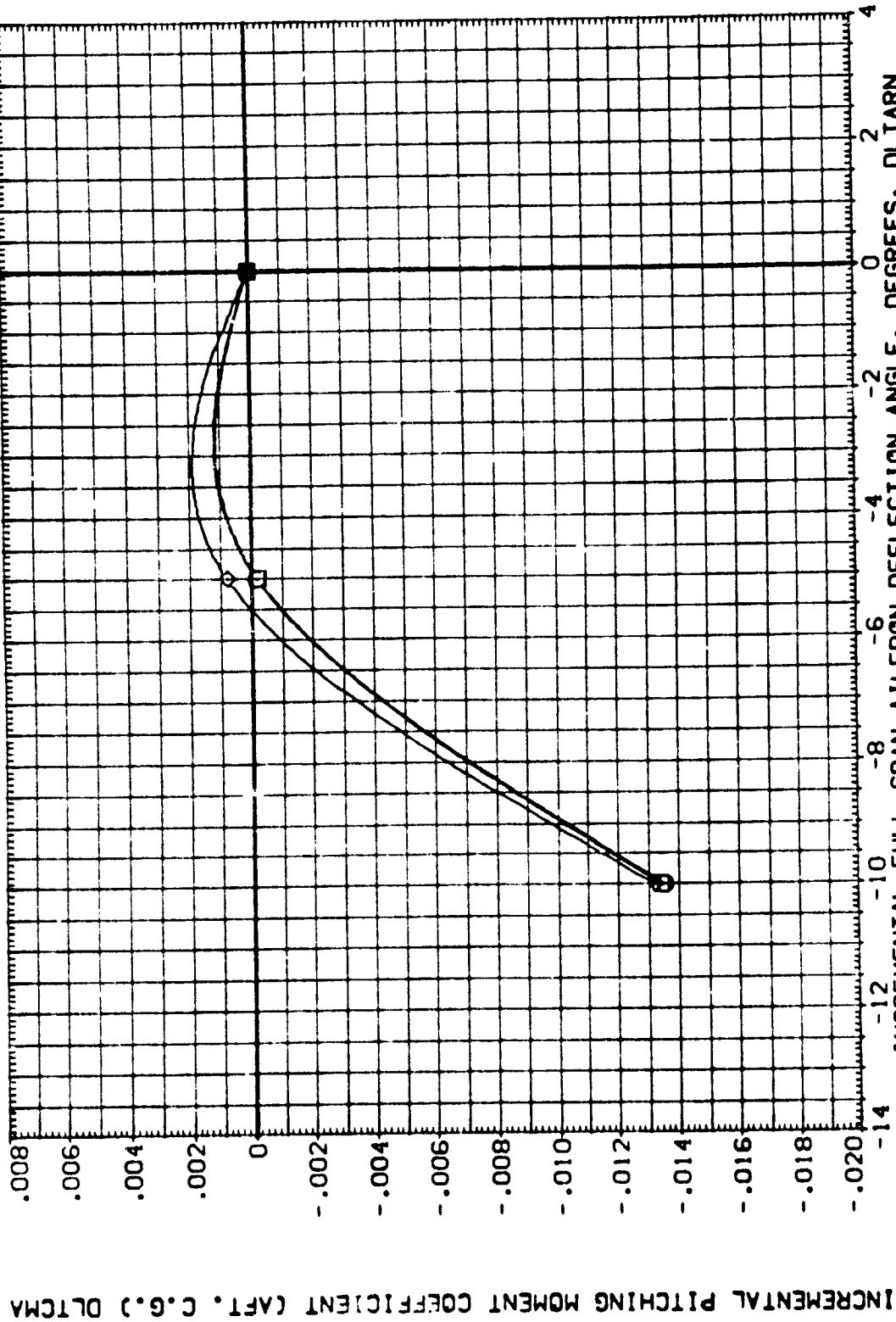


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION



0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (JTW024)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLTARN	SREF	REFERENCE INFORMATION
□	17.000		8.000	DLBDFP	.000	JTW024	2690.0000	50.FT.
◇	19.000		.000	SPOBPK	55.000	JTW024	474.8100	IN.
△	21.000		.000	RAVL	3.530	JTW001	936.6800	IN.
▽	23.000						1076.6800	IN. X9
◇	25.000						375.0000	IN. Y9
▽	27.000						375.0000	IN. Z9
							SCALE	.0150

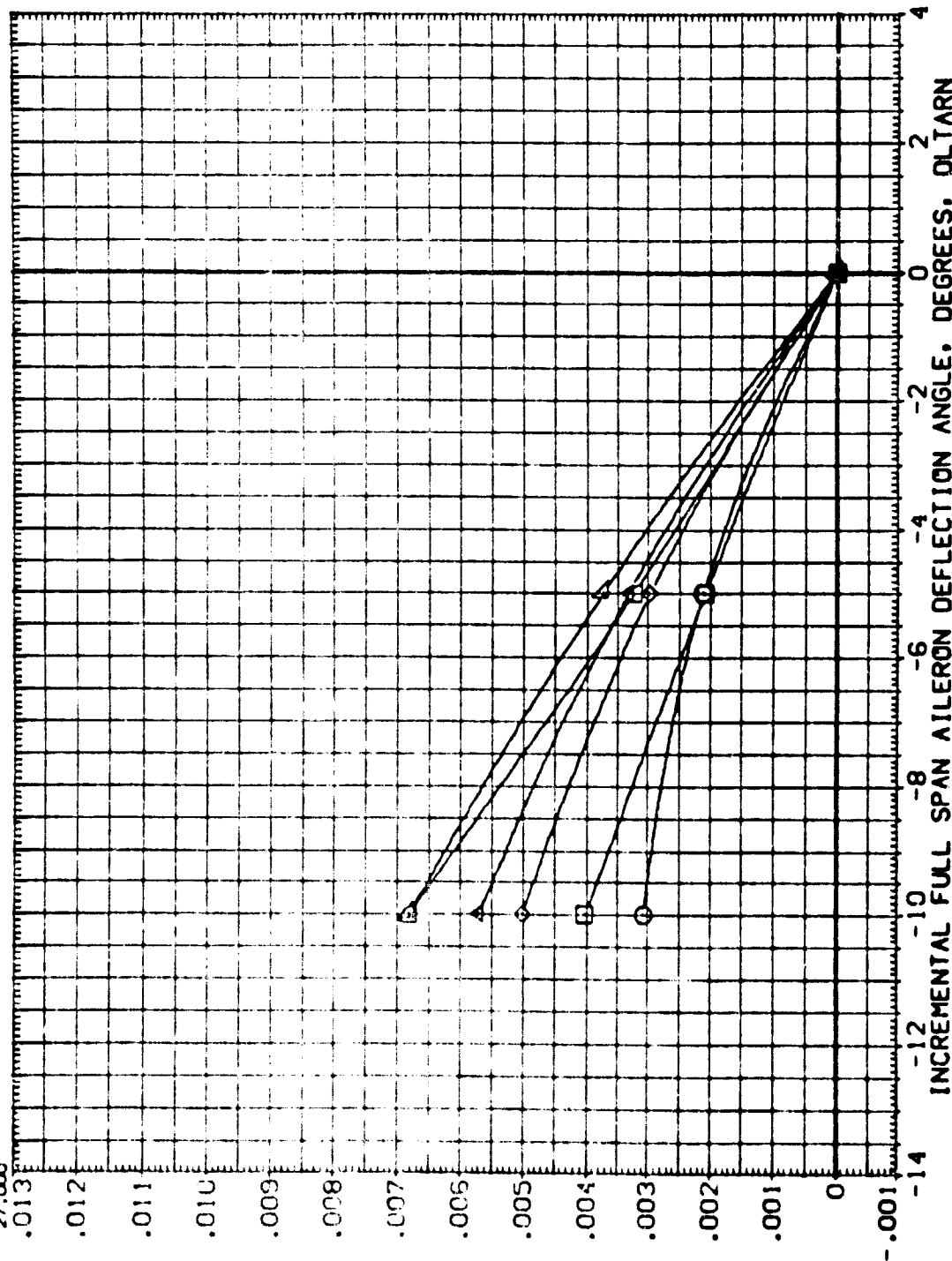


FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

(JTW024)

SYMBOL	ALPHA	WAO1	BETA	RUDER	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	29.000	8.000	CLDOP		.000	DLTARN	SREF 2690.0000 SQ.FT.
□	31.000	.000	SPORBK		55.000	JTW024	LREF 474.8100 IN.
◇	33.000	.000	RVL		3.530	JTW001	BREF 936.6800 IN.
△	35.000						YREF 1076.6800 IN.YB
▽	37.000						YREF .0000 IN.YB
◇	39.000						ZREF 375.0000 IN.ZB
							SCALE .0150

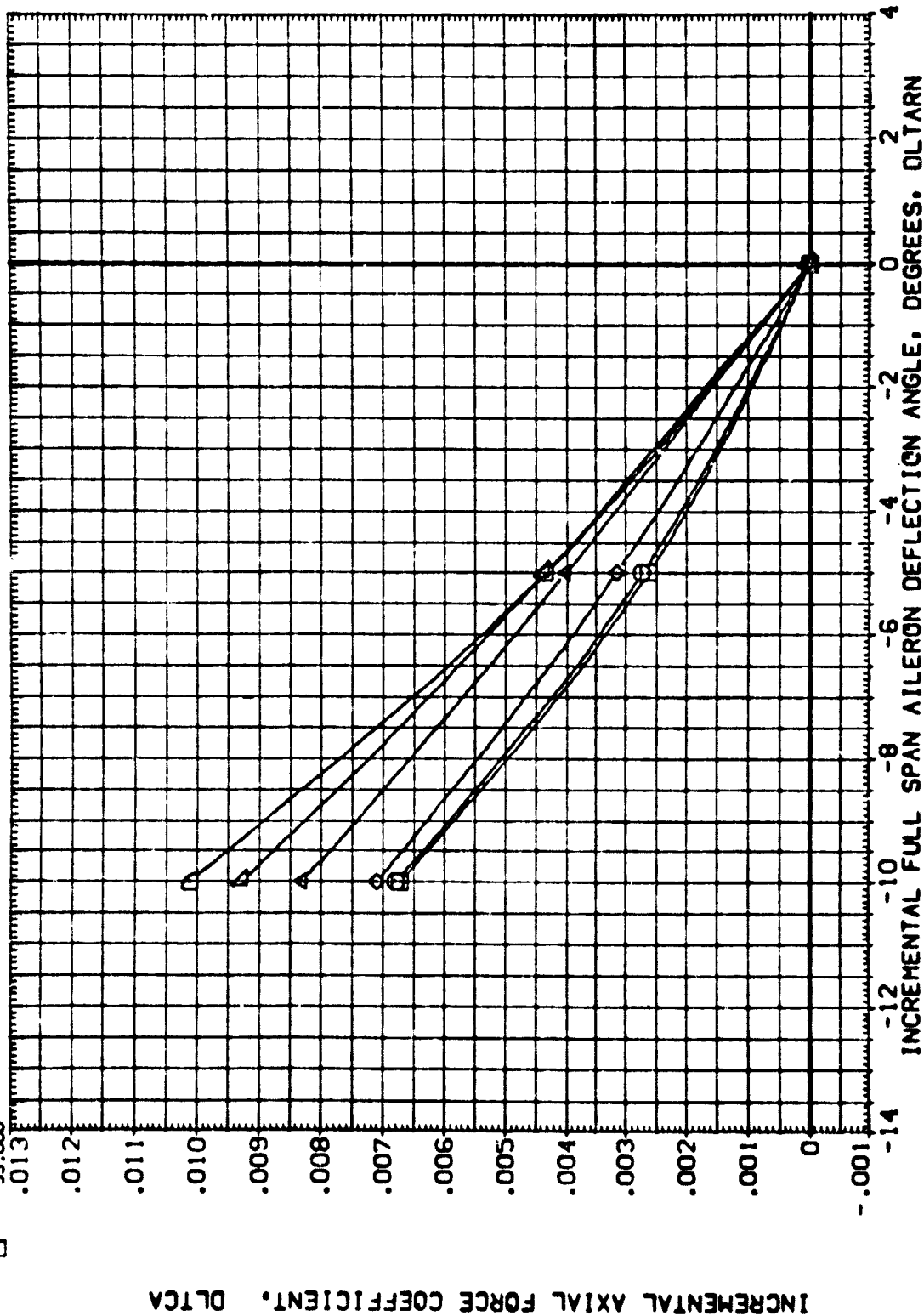


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

(JTW024)

SYMBOL

□ □ ◇

ALPHA

41.000  
43.000  
45.000

PACH  
BETA  
RUDDER

PARAMETRIC VALUES

8.000  
.000  
.000

CLGFP  
SPDRK  
RWL

.000  
55.000  
3.530

DATA SOURCE

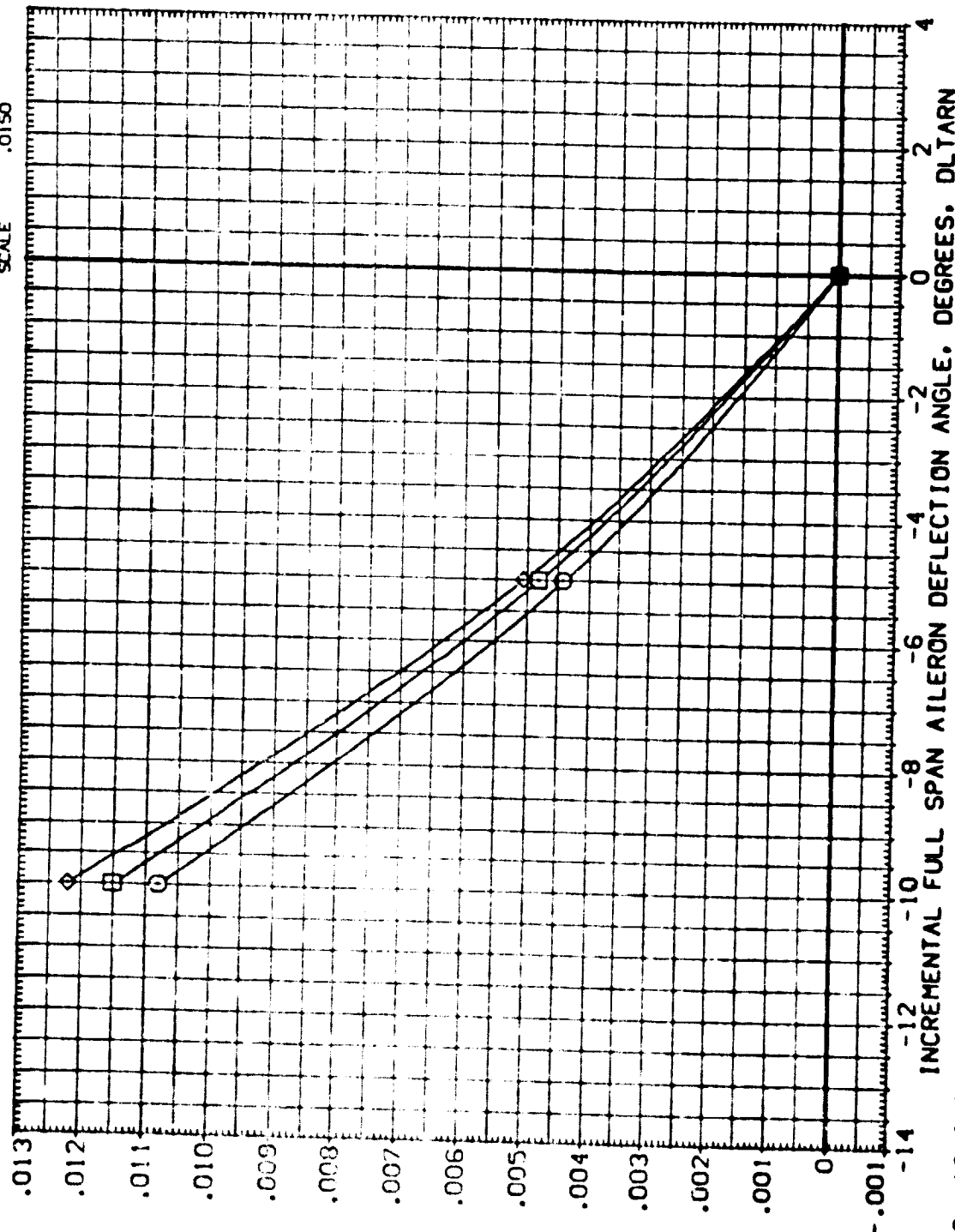
.000  
JTW024  
JTW001

DLTARN  
-10.000  
.000

DLTARN  
-5.000

REFERENCE INFORMATION

SREF 20.00.0000 SQ. FT.  
LREF 474.8100 IN.  
BREF 936.6800 IN.  
XREF 1076.6800 IN. X0  
YREF .0000 IN. Y0  
ZREF 375.0000 IN. Z0  
SCALE .0150



INCREMENTAL AXIAL FORCE COEFFICIENT, DLTCA

FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

(JTWO24)

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLTARN	REF	REFERENCE INFORMATION
17.000	8.000	DLDFP	.000	JTWO24	-5.000	SRF	2690.0000 SQ.FT.
19.000	.000	SPDRK	55.000	JTWO24	-10.000	LRF	474.8100 IN.
21.000	.000	RVL	3.530	JTWO01	.000	BRF	936.6800 IN.
23.000						TRF	1076.6800 IN.
25.000						TRF	375.0000 IN.
27.000						TRF	375.0000 IN.
						SCALE	.0150

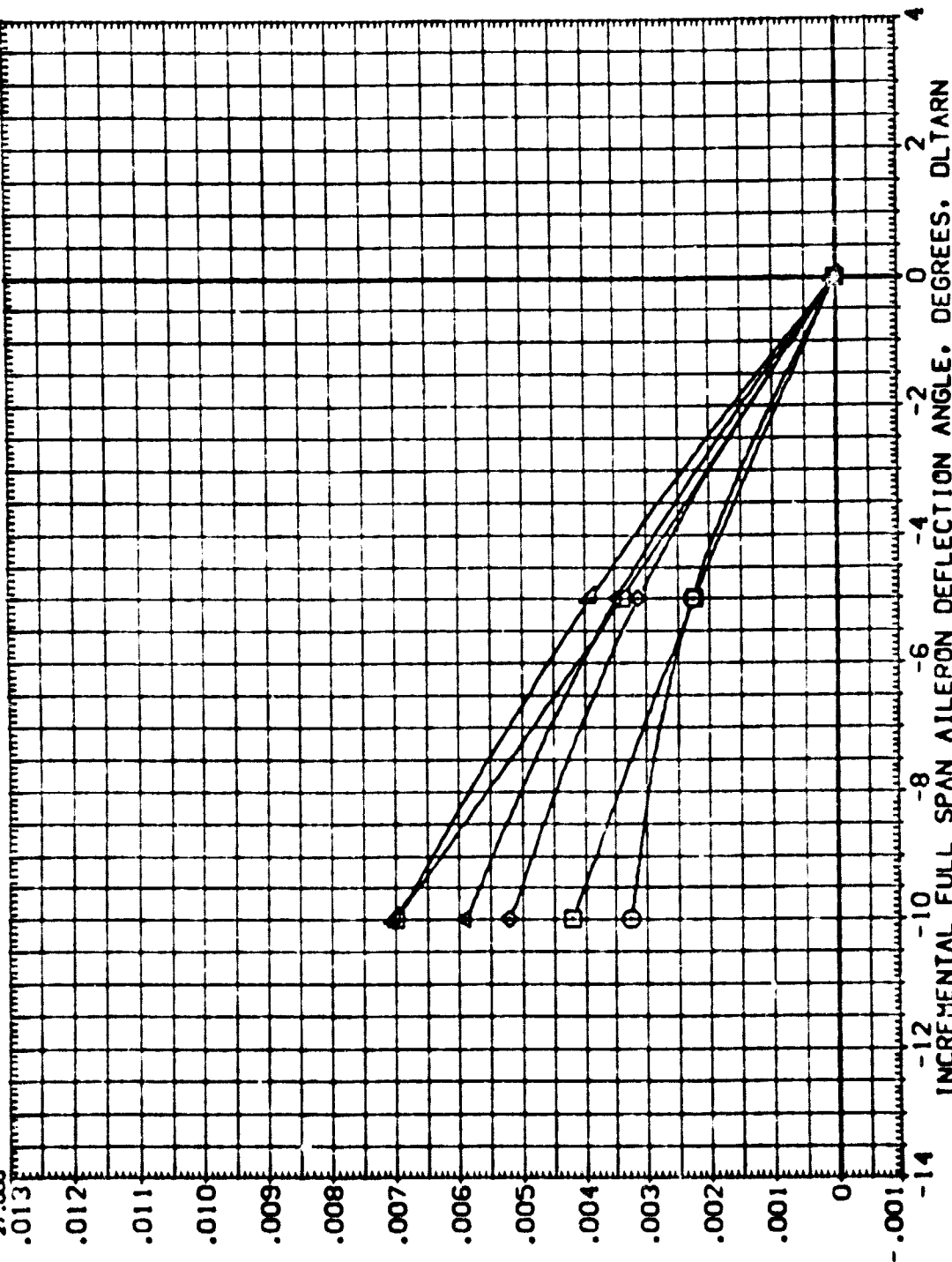


FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION

(JTW024)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLTARN	SREF	REFERENCE INFORMATION
29.000	0.000	0.000	.000	.000	-5.000	2690.0000	SO.FT.
31.000	0.000	0.000	55.000	JTW024	JTW070	171.8100	IN.
33.000	0.000	0.000	3.530	JTW001		536.6800	IN.
35.000	0.000	0.000				1076.0000	IN.
37.000	0.000	0.000				375.0000	IN.
39.000	0.000	0.000				248.0000	IN.
						SCALE	.0150

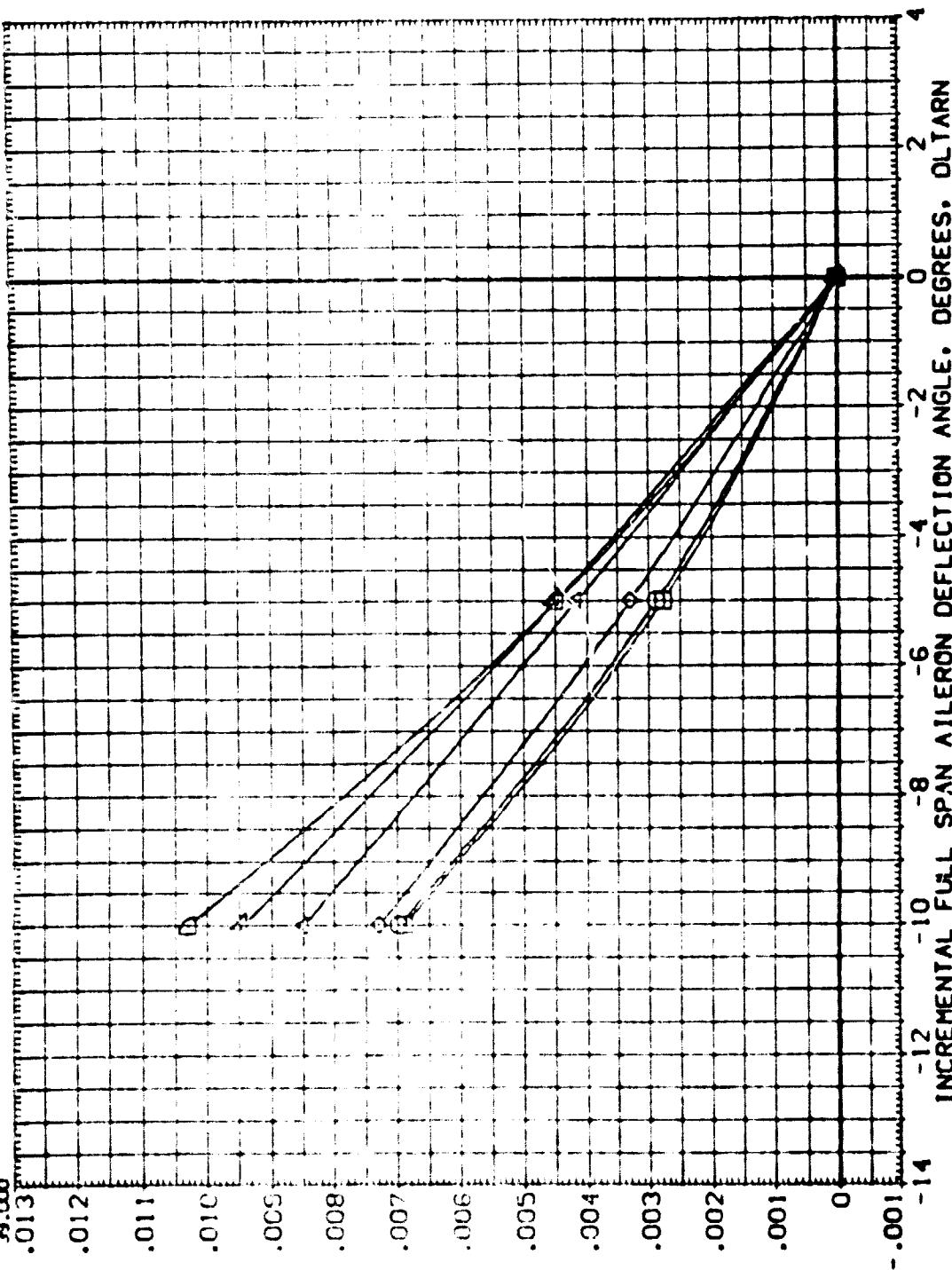


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

(JTW024)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
 ◇  
 □  
 ○

ALPHA  
 41.000  
 43.000  
 45.000

PARAMETRIC VALUES  
 MACH  
 BETA  
 RUDDER

DATA SOURCE  
 DATASET  
 JTW024  
 JTW001

DATA SOURCE  
 DATASET  
 JTW070

DLTARN  
 -5.000

SCALE  
 .0150

REFERENCE INFORMATION  
 SREF 2630.0000 SQ.FT.  
 LREF 474.8100 IN.  
 REF 936.6800 IN.  
 YREF 1076.6800 IN.  
 YPROP 375.0000 IN.  
 ZPROP 375.0000 IN.  
 SCALE .0150

INCREMENTAL FOREBODY AXIAL FORCE COEFFICIENT, DLTCAF

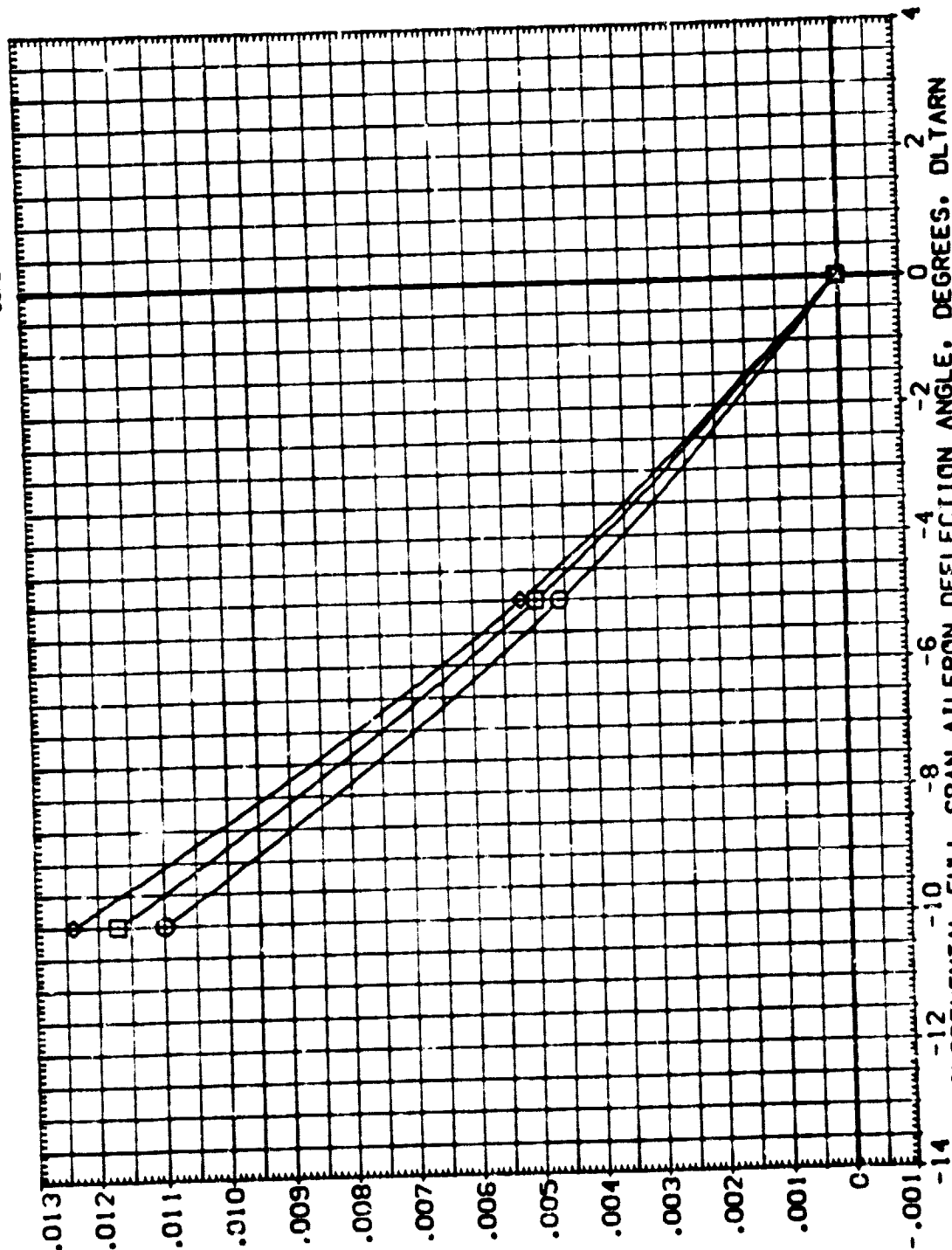
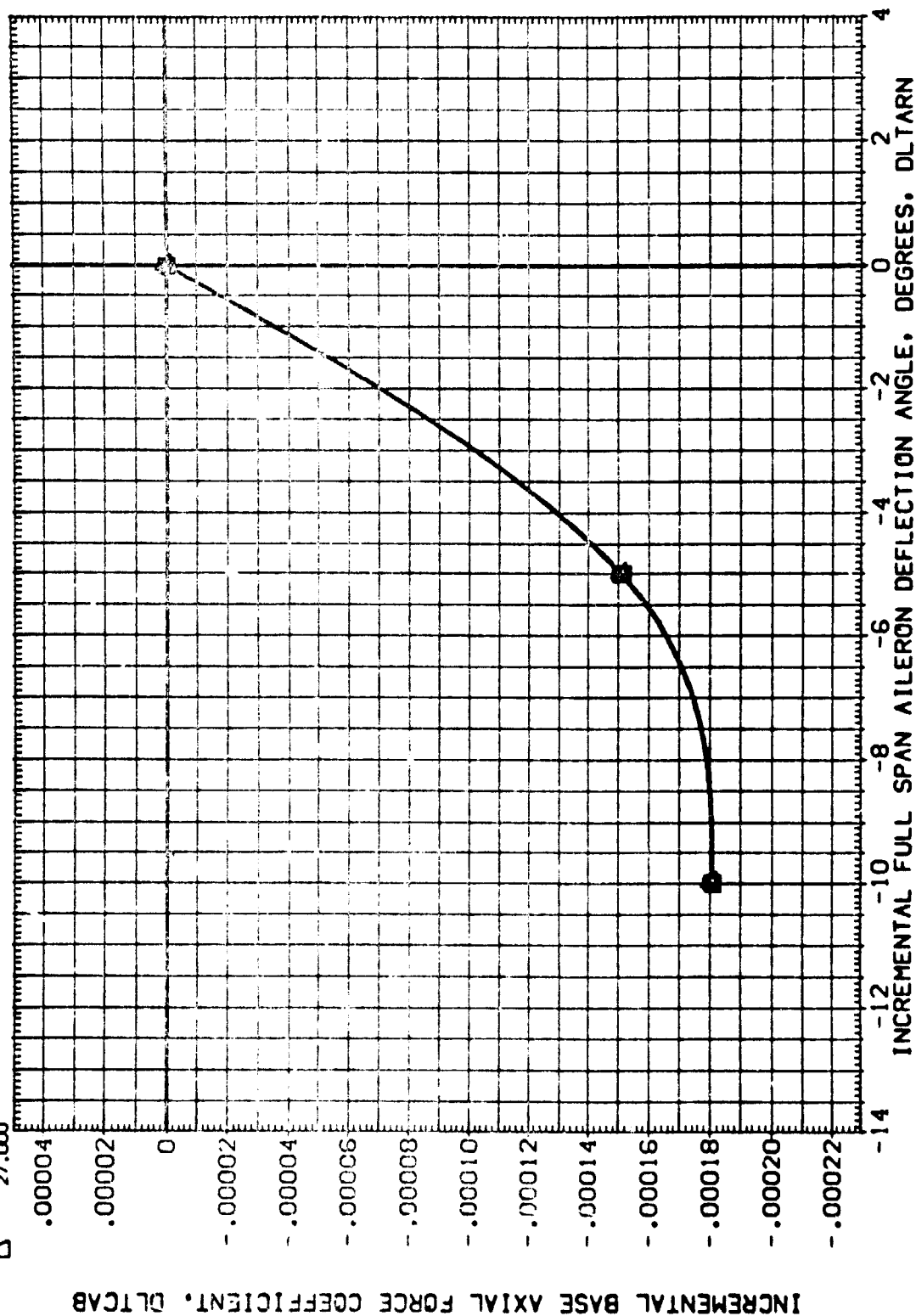


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

GA79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
		MACH	CLBOFF	.000	DLTARN	DLTARN	SREF	50.FT.
<input type="radio"/>	17.000	BETA	.000	55.000	-10.000	REF	2690.0000	IN.
<input type="checkbox"/>	19.000	CLUDER	.000	3.530	.000	REF	474.8100	IN.
<input type="checkbox"/>	21.000					REF	536.6900	IN.
<input type="checkbox"/>	23.000					REF	1076.6900	IN.
<input type="checkbox"/>	25.000					REF	375.0000	IN.
<input type="checkbox"/>	27.000					REF	.0150	IN.



**FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION**

(JTW024)

CA79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	29.000		8.000	DLBDFP	SREF 2690.0000 SO.FT.
□	31.000		.000	JTW024	LREF 474.8100 IN.
◇	33.000		.000	SPDRK	BREF 936.6800 IN.
△	35.000		.000	RN/L	XTRP 1076.6800 IN.X0
▽	37.000				YTRP .0000 IN.Y0
	39.000				ZTRP 375.0000 IN.Z0
					SCALE .0150

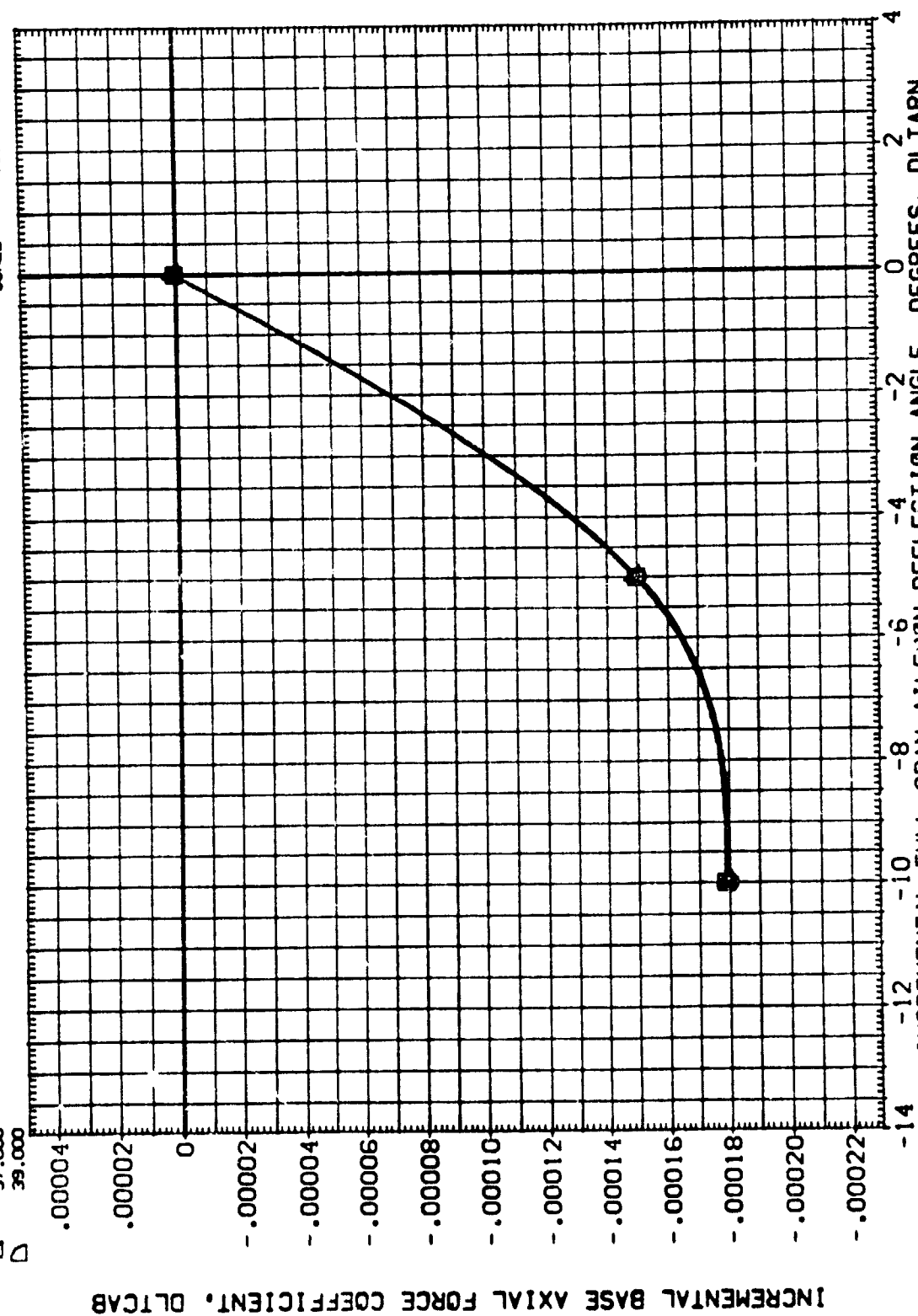


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (JTW024)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLTARN	DLTARN	REFERENCE INFORMATION
○	41.000		8.000	DLBDFP	.000	JTW024	-10.000	SREF 2630.0000 SQ.F.T.
□	43.000	BETA	.000	SPDBK	55.000	JTW024	-5.000	LREF 474.8100 IN.
◇	45.000	RUDDER	.000	RAVL	3.530	JTW001		BREF 936.6800 IN.
								XREF 1076.6800 IN.X3
								YREF .0000 IN.Y3
								ZREF .0000 IN.Z3
								SCALE .0150

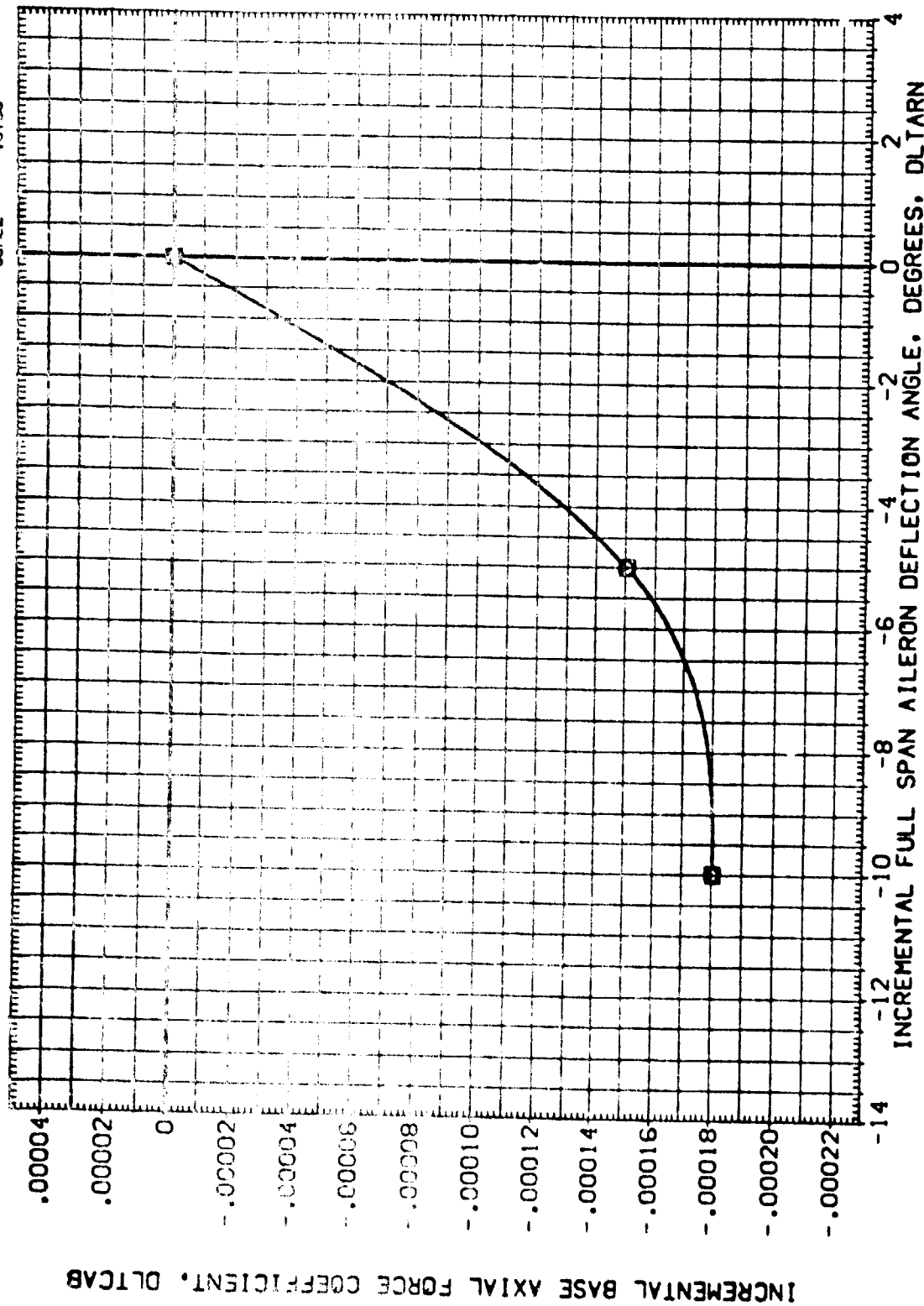
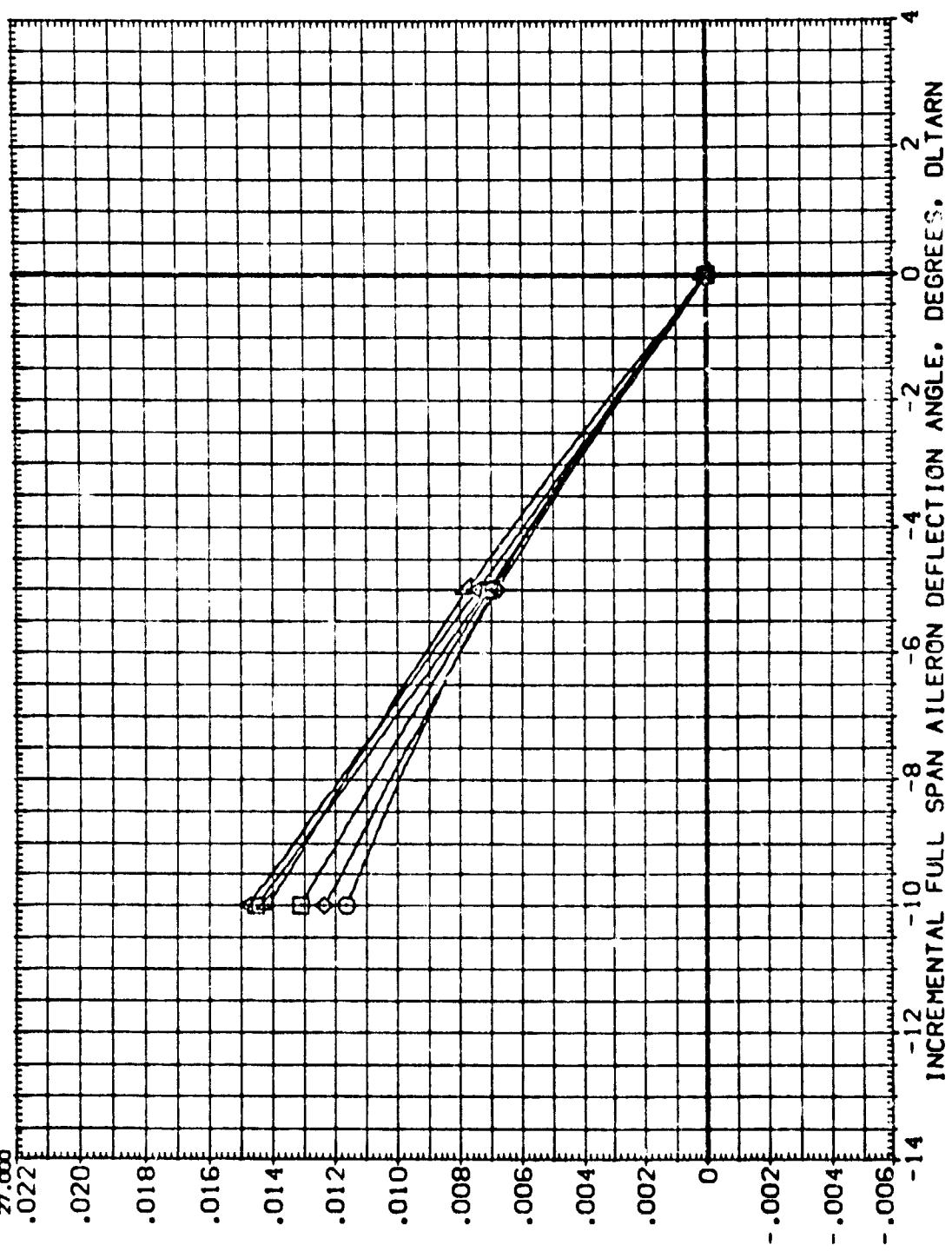


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (JTW024)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION					
ALPHA	MACH	8.000	DLBDFP	.000	DLTARN	5.000	REF	2690.0000	50. FT.
17.000	BETA	.000	SPDRK	55.000	JTW024	JTW070	REF	474.8100	IN.
19.000	RUDDER	.000	RV/L	3.530	JTW001		BREF	936.6800	IN.
21.000							XTRP	1076.0000	IN. X0
23.000							YTRP	.0000	IN. Y0
25.000							ZTRP	375.0000	IN. Z0
27.000							SCALE	.0150	



INCREMENTAL LIFT COEFFICIENT, DLCL

FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

(JTW024)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL

□ □ ◇ △ ▽ ▽

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000

MACH  
BETA  
RUDDER

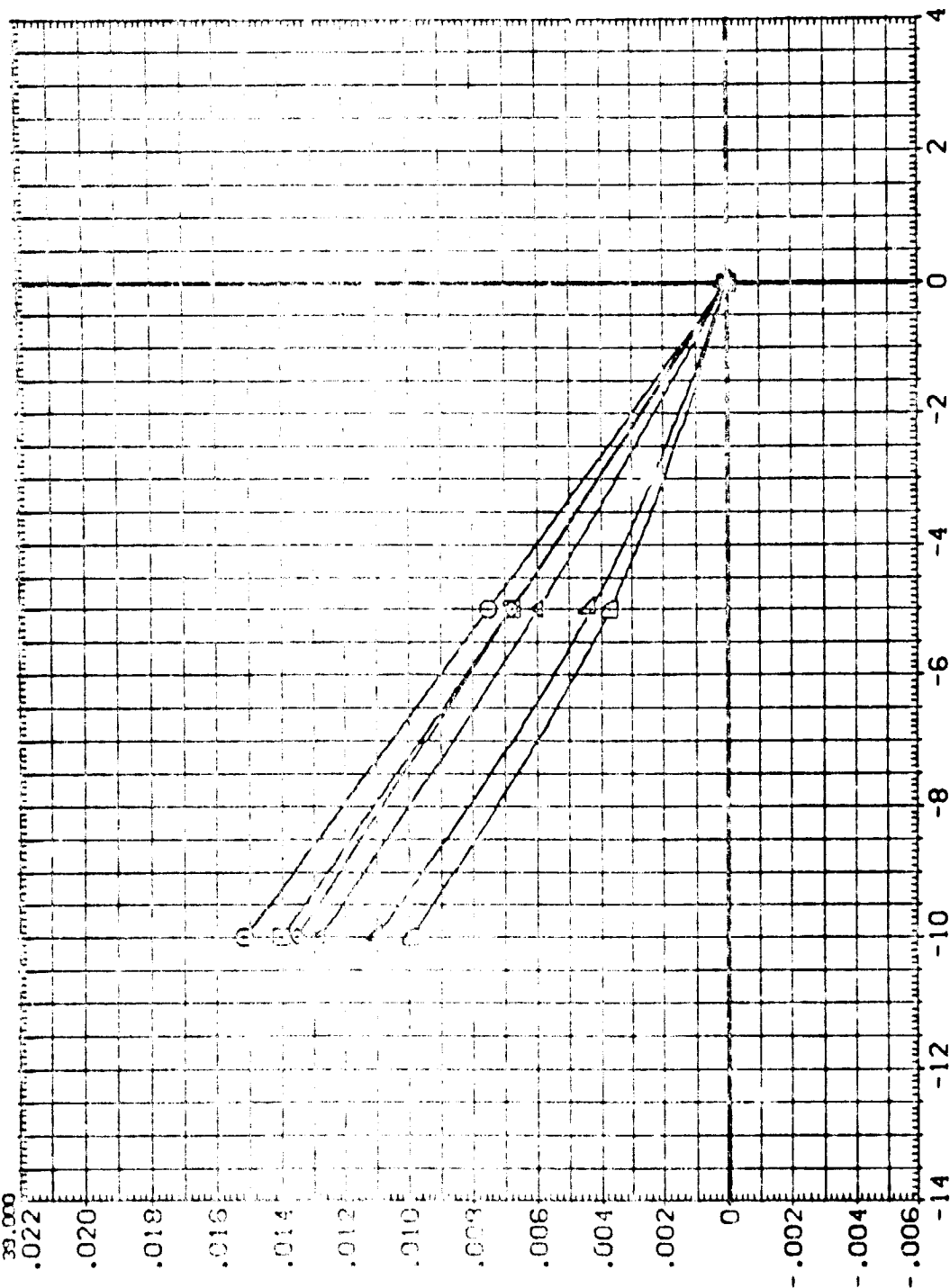
PARAMETRIC VALUES  
8.000 DBOFF  
.000 SPOBRK  
.000 RVL

DATA SOURCE  
DLTARN  
-10.000  
.000  
55.000 JTW024  
3.530 JTW001

DATASET  
JTW070

DLTARN  
-5.000

REFERENCE INFORMATION  
SREF 2850.0'00 SO.FT.  
LREF 474.0'00 IN.  
BREF 936.6'00 IN.  
XREF 1076.6'00 IN.  
YREF .0000 IN.  
ZREF 375.0'00 IN.  
SCALE .0150



INCREMENTAL LIFT COEFFICIENT, DLCL

INCREMENTAL FULL SPAN AILERON DEFLECTION ANGLE, DEGREES, DLTARN

FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION

51801

ALPHA  
41.000  
43.000  
45.000

MACH  
BETA  
RUDDER

PARAMETRIC VALUES	
8,000	CLBOFP
,000	SPDRK
,000	FNVL

DATA SET	DLTARN	DATA SET	DLTARN
35.000	-10.000	JTW024	
3.530	.000	JTW001	

DATA SOURCE

**SECRET**

SCALE  
Z-102  
Y-104  
X-106  
B-108  
L-110  
G-112

2630.0000	50. FT.
474.8100	IN.
936.6800	IN.
1075.6300	IN. X3
0.0000	IN. Y0
375.0000	IN. Z0
.0150	

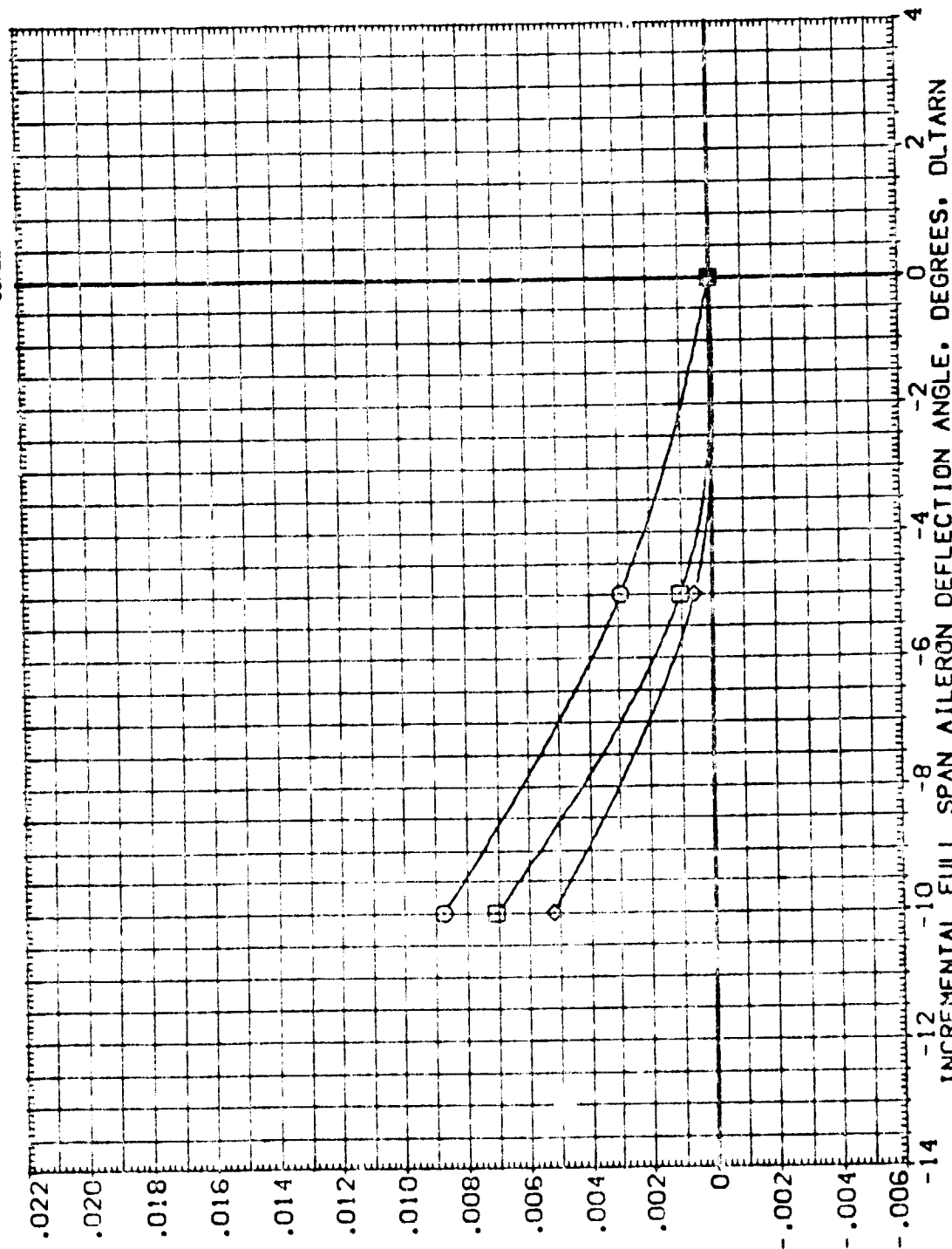


FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (JTW024)

SYMBOL

ALPHA  
17.000  
19.000  
21.000  
23.000  
25.000  
27.000

MACH  
BETA  
FLUOR

PARAMETRIC VALUES  
8.000  
.000  
.000  
8.000  
8.000  
8.000

DATA SOURCE  
DATASET  
JTW024  
JTW001

DLTARN  
-5.000  
-10.000  
-15.000  
-20.000  
-25.000  
-30.000

REFERENCE INFORMATION  
2000.0000  
474.8110  
976.0000  
1076.0000  
573.0000  
0150

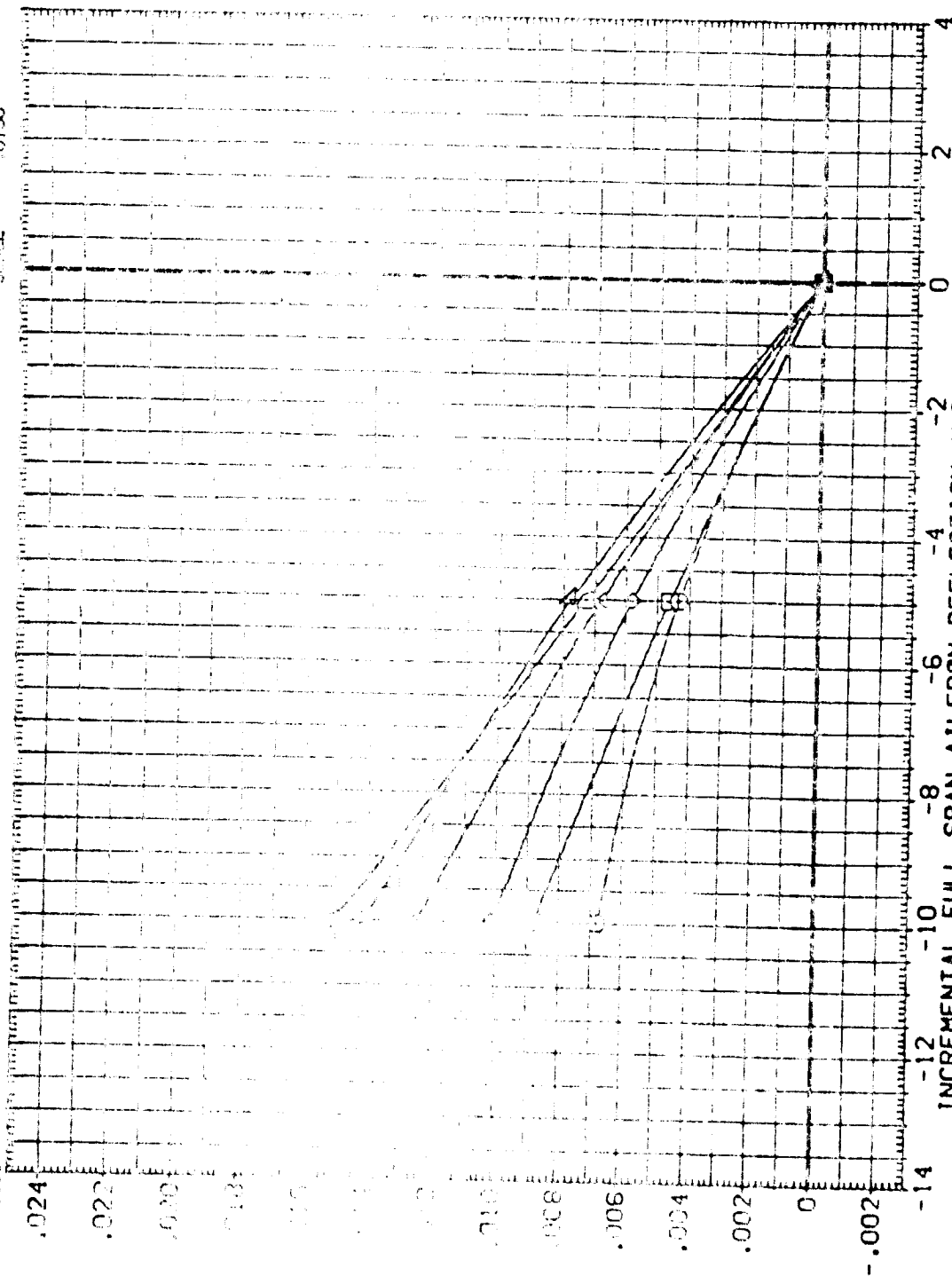
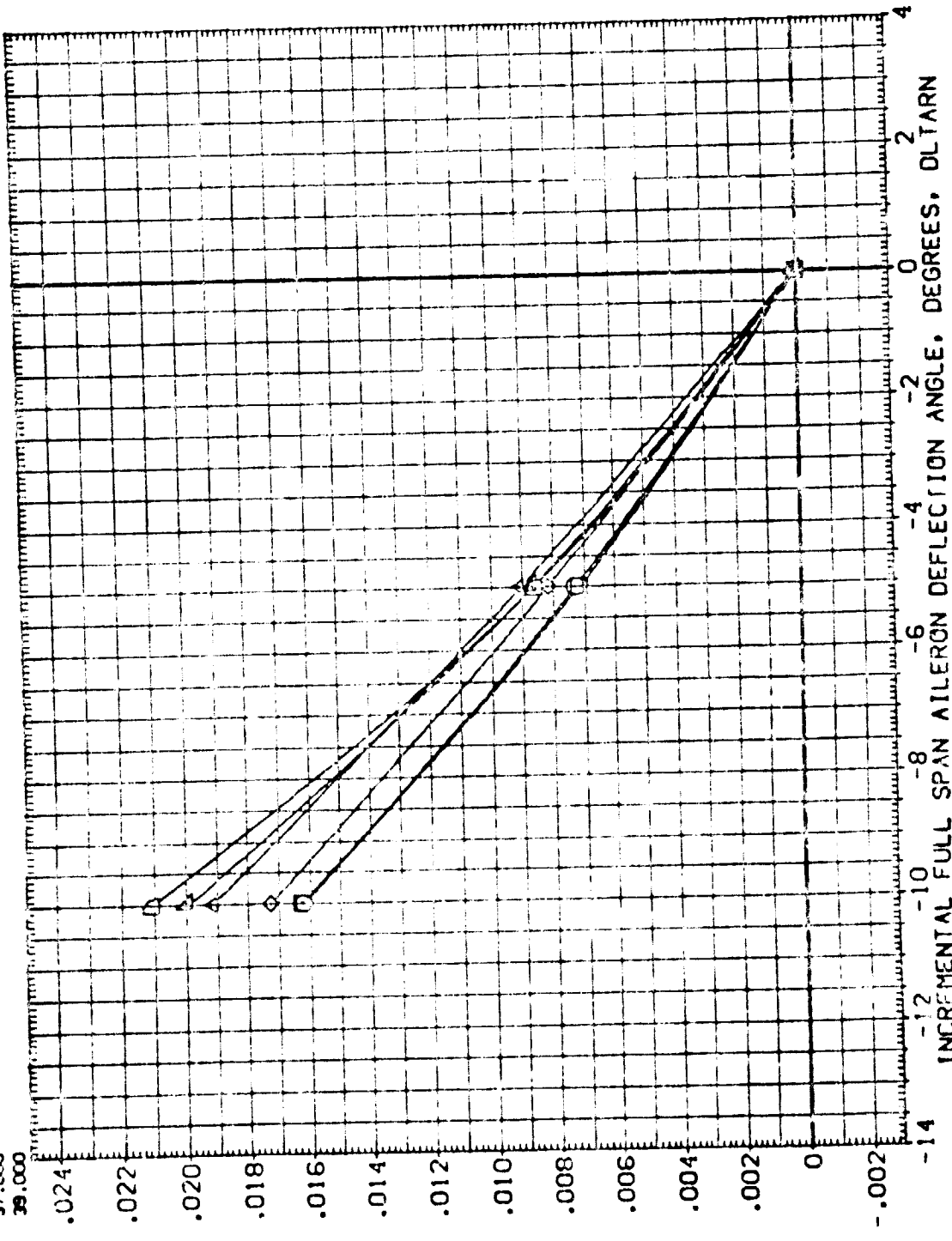


FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (JTW024)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	.000	DLTARN	SREF	59.FT.
29.000	8.000	.000	DLTARN	2690.0000	IN.
31.000	.000	55.000	JTW024	474.8100	IN.
33.000	.000	3.530	JTW001	936.6800	IN.
35.000	.000			1076.6800	IN.
37.000				375.0000	IN.
				SCALE	.0150



INCREMENTAL DRAG COEFFICIENT, CLCD

FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

(JTW024)

GA79 826 C9 E43 F8 M16 N28 R5 V8 W116

REF-REF-CE INFORMATION  
 SQ.FT. 2630.0000  
 IN. 474.8100  
 IN. 936.6800  
 IN. 1016.6800  
 IN. 375.0000  
 IN. 0150

DATA SOURCE  
 DATASET JTW070  
 ULTARN -5.000

PARAMETRIC VALUES  
 MACH 8.000  
 BETA 0.000  
 RUDDER 0.000

DATA SOURCE  
 DATASET JTW024  
 ULTARN -10.000

PARAMETRIC VALUES  
 MACH 8.000  
 BETA 0.000  
 RUDDER 0.000

DATA SOURCE  
 DATASET JTW001  
 ULTARN 3.500

SYMBOL  
 ○  
 □  
 ◇

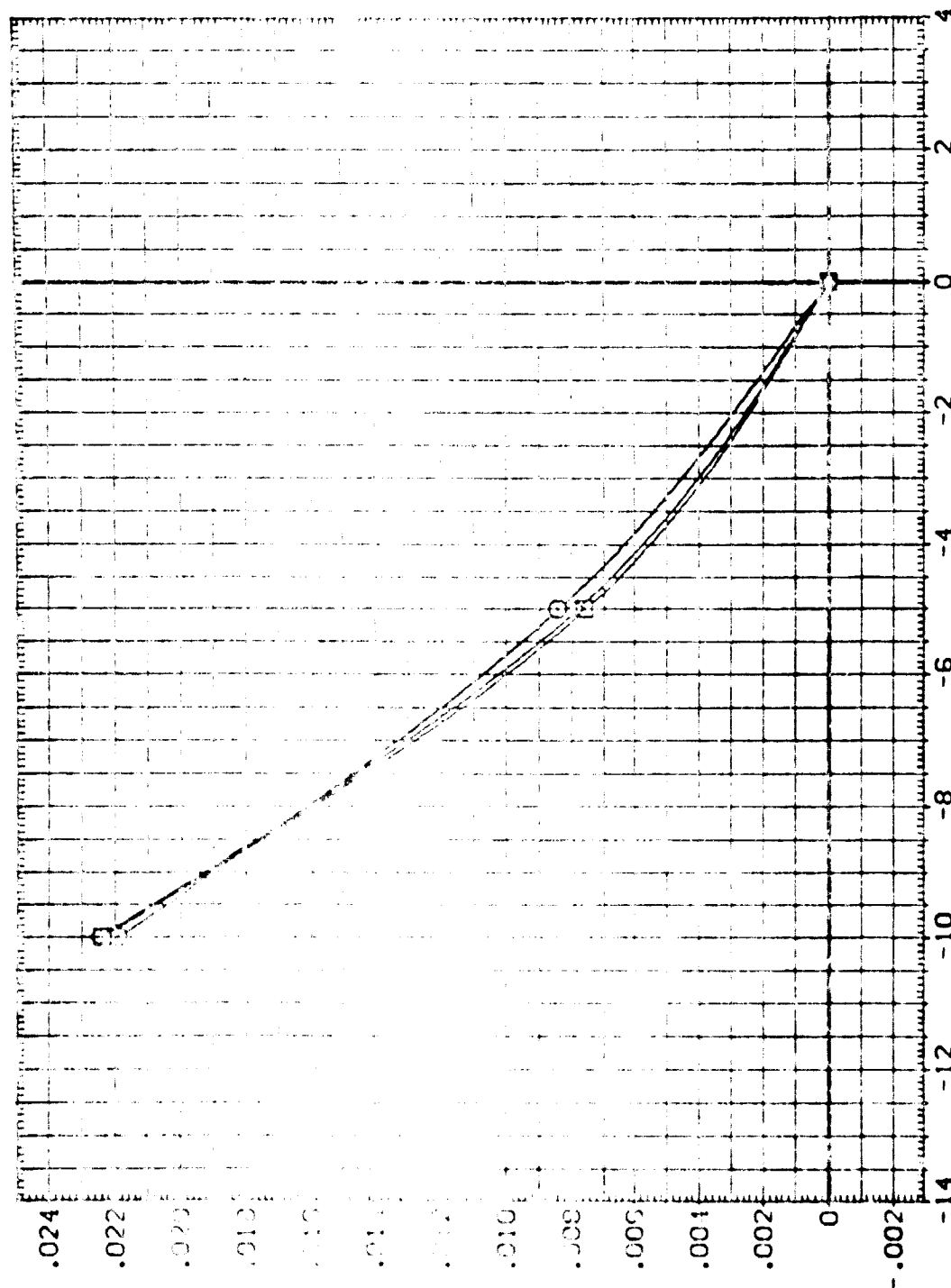


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

(KTW024)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
SQ.FT. 2690.0000  
IN. 474.8100  
IN. 936.6800  
IN. 1076.6800  
IN. 375.0000  
IN. 375.0000  
SCALE .0150

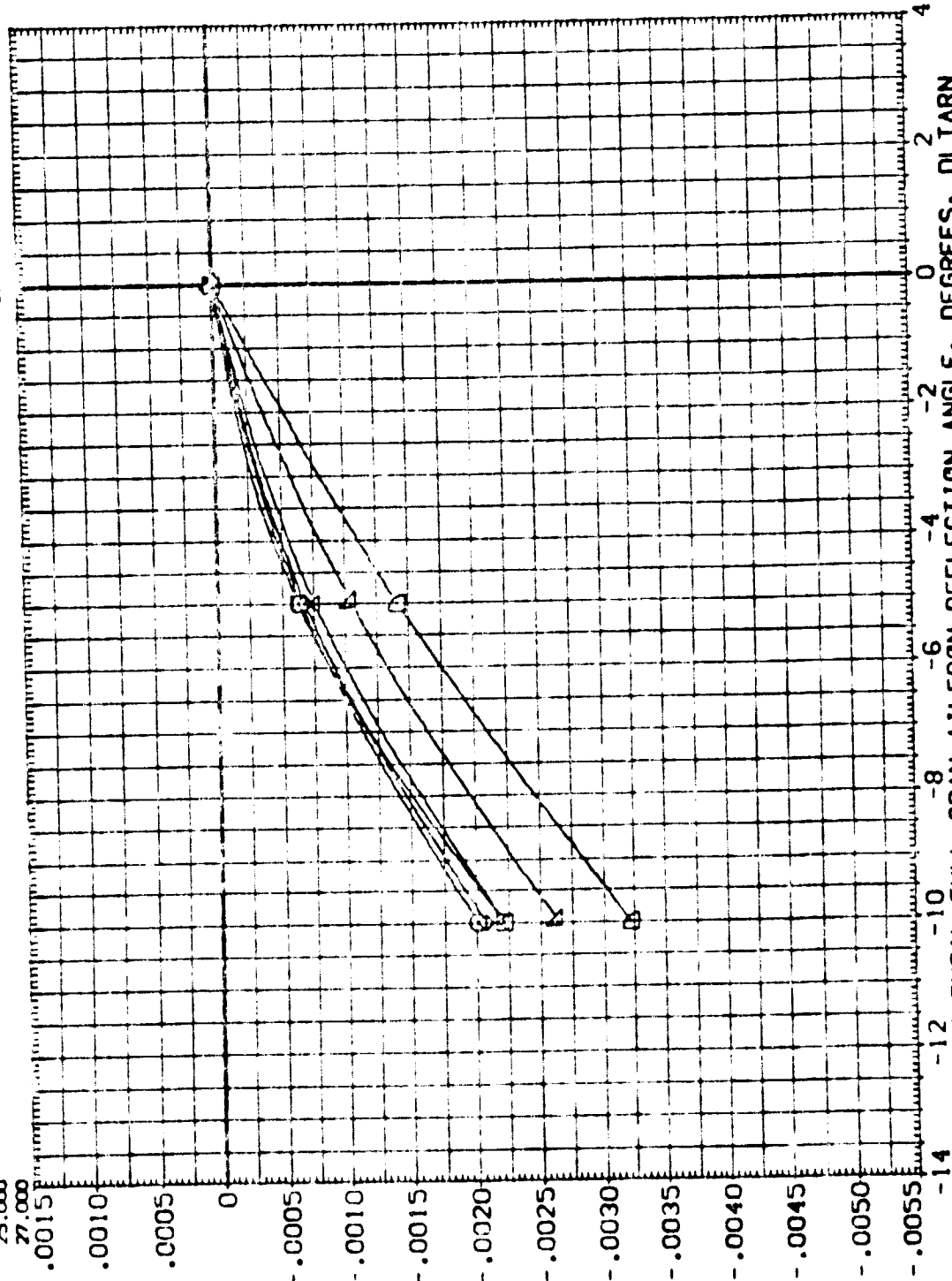
DATA SOURCE  
DLTARN -10.000  
KTW070 .000

PARAMETRIC VALUES  
DLBUPP 8.000  
SPT3RK .000  
RVLL .000

ALPHA 17.000  
MACH 19.000  
BETA 21.000  
RIDER 23.000  
25.000

SYMBOL  
□  
◇  
△  
▽  
○

INCREMENTAL SIDE FORCE COEFFICIENT, CLCY



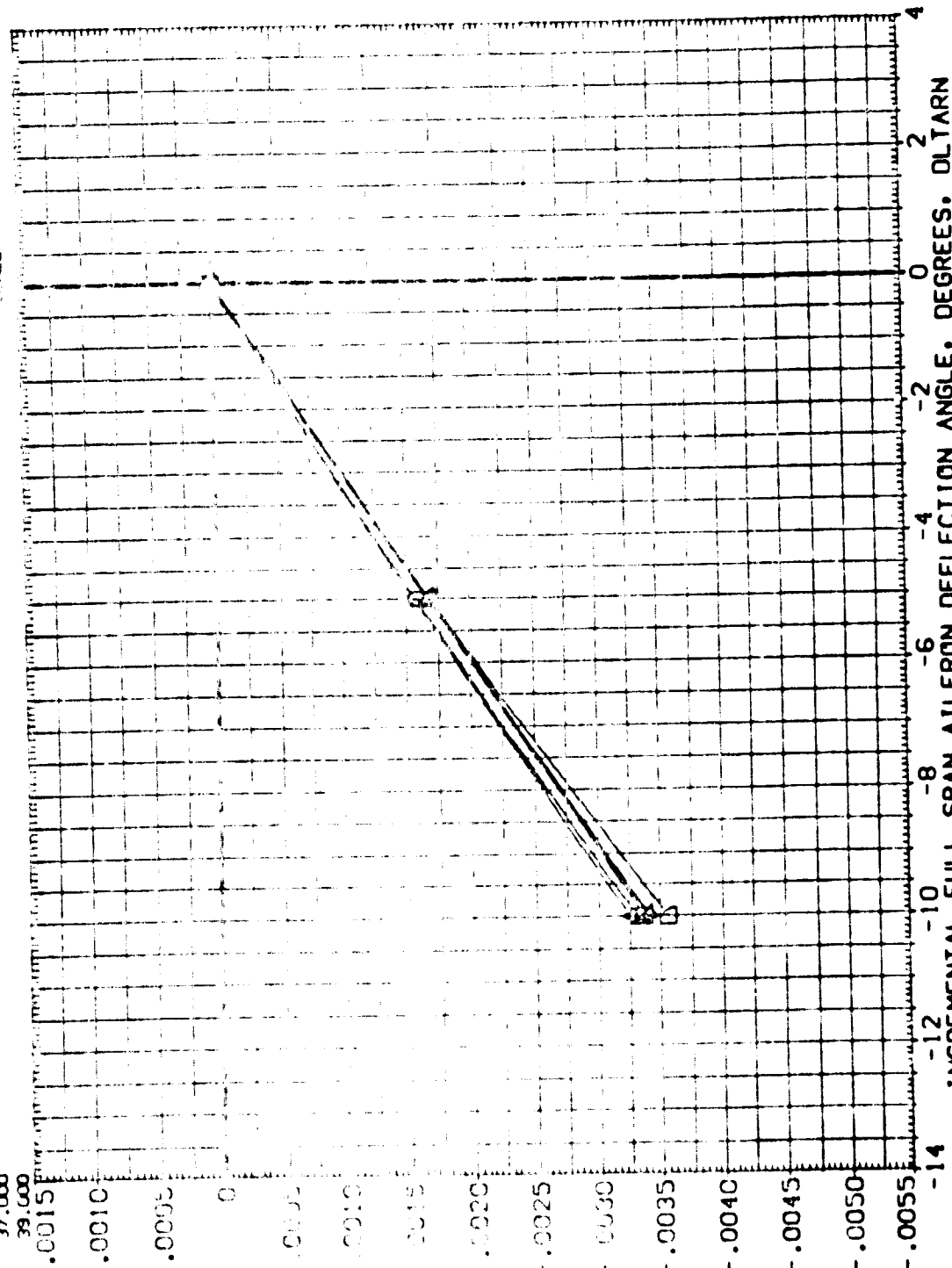
INCREMENTAL FULL SPAN AILERON DEFLECTION ANGLE, DEGREES, DLTARN

FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION



1	00	WACH
2	00	BETA
3	00	RUDDER
4	00	
5	00	

000000



(KTW024)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	41.000		8.000 OLBOFP	.000 DATASET	SREF 2690.0000
□	43.000	BETA	.000 SPOCRK	KTW074	LREF 474.6100
◇	45.000	RUDDER	.000 R/L	3.530 KTW001	BREF 936.6800
					XREF 1076.6800
					YREF .0000
					ZREF 375.0000
					SCALE .0150

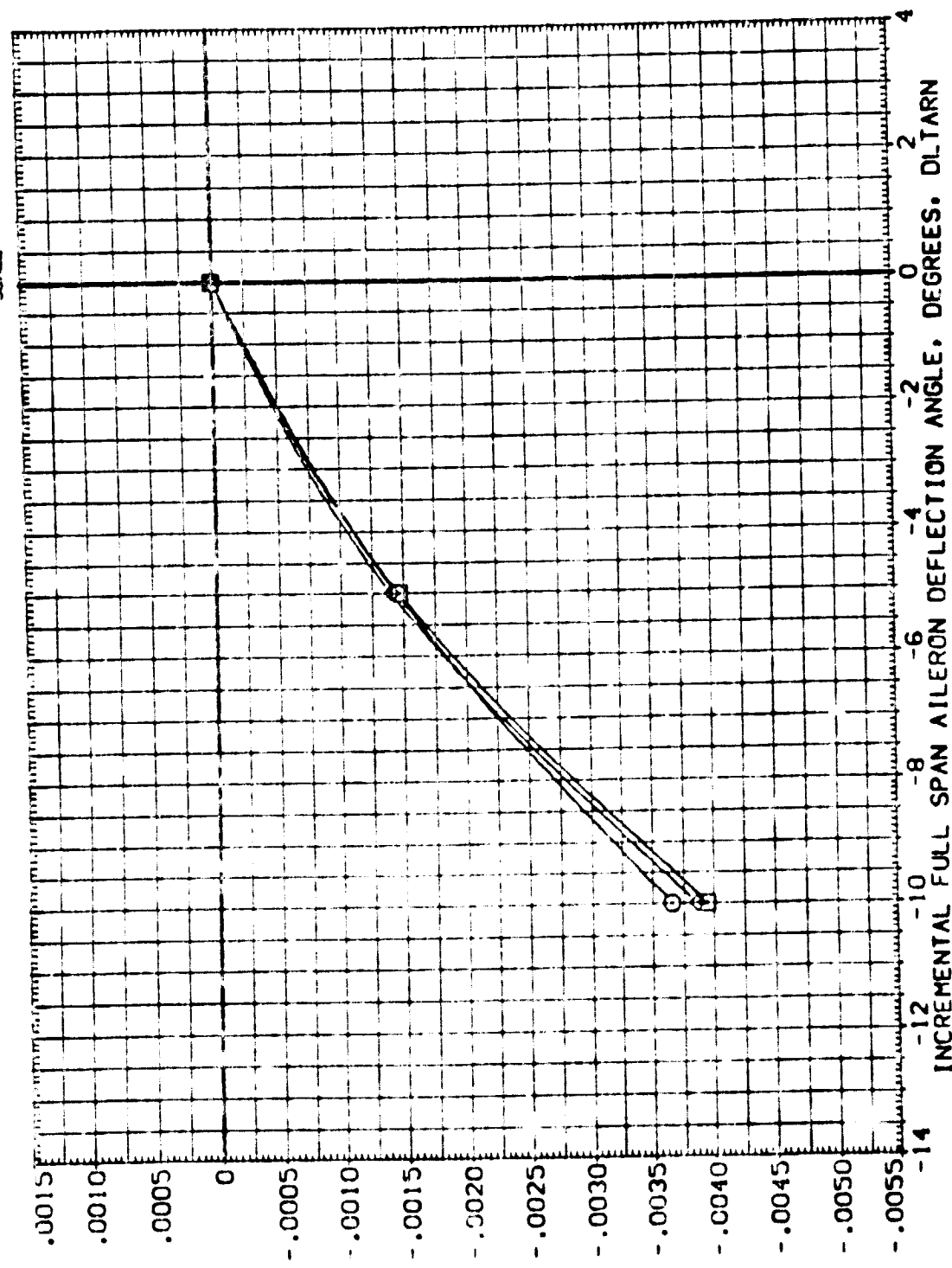


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
ALPHA	PACH	DLCOEF	.000	DATASET	DLTARN	SREF
17.000	8.000	DLCOEF	.000	KTW024	-5.000	7650.0000
19.000	.000	SPUCLARK	.000	KTW024	KTW070	474.8100
21.000	.000	RVL	3.530	KTW001		936.6800
23.000						1076.6800
25.000						1130.0000
27.000						375.0070
						SCALE
						.0150

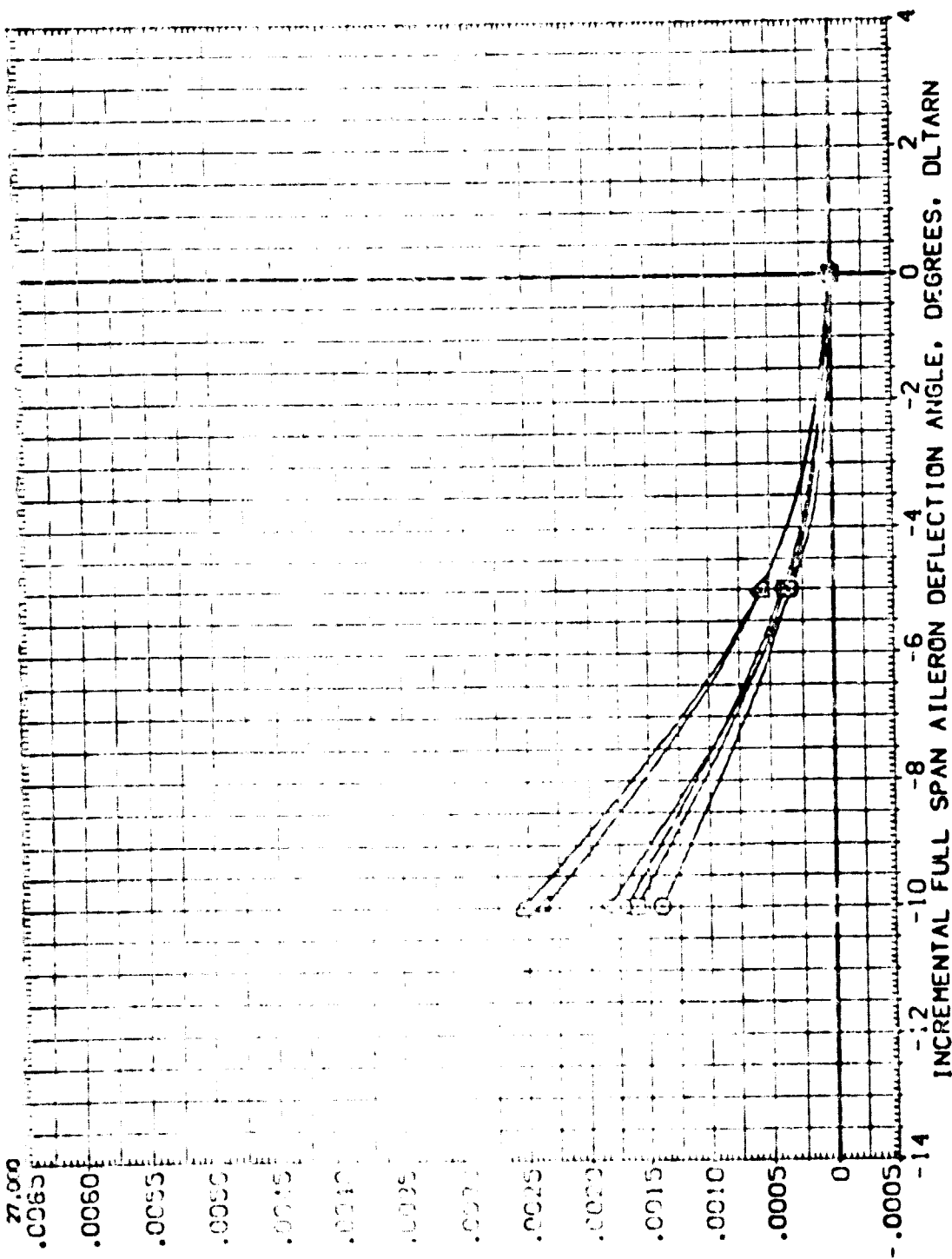


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION

5m6d

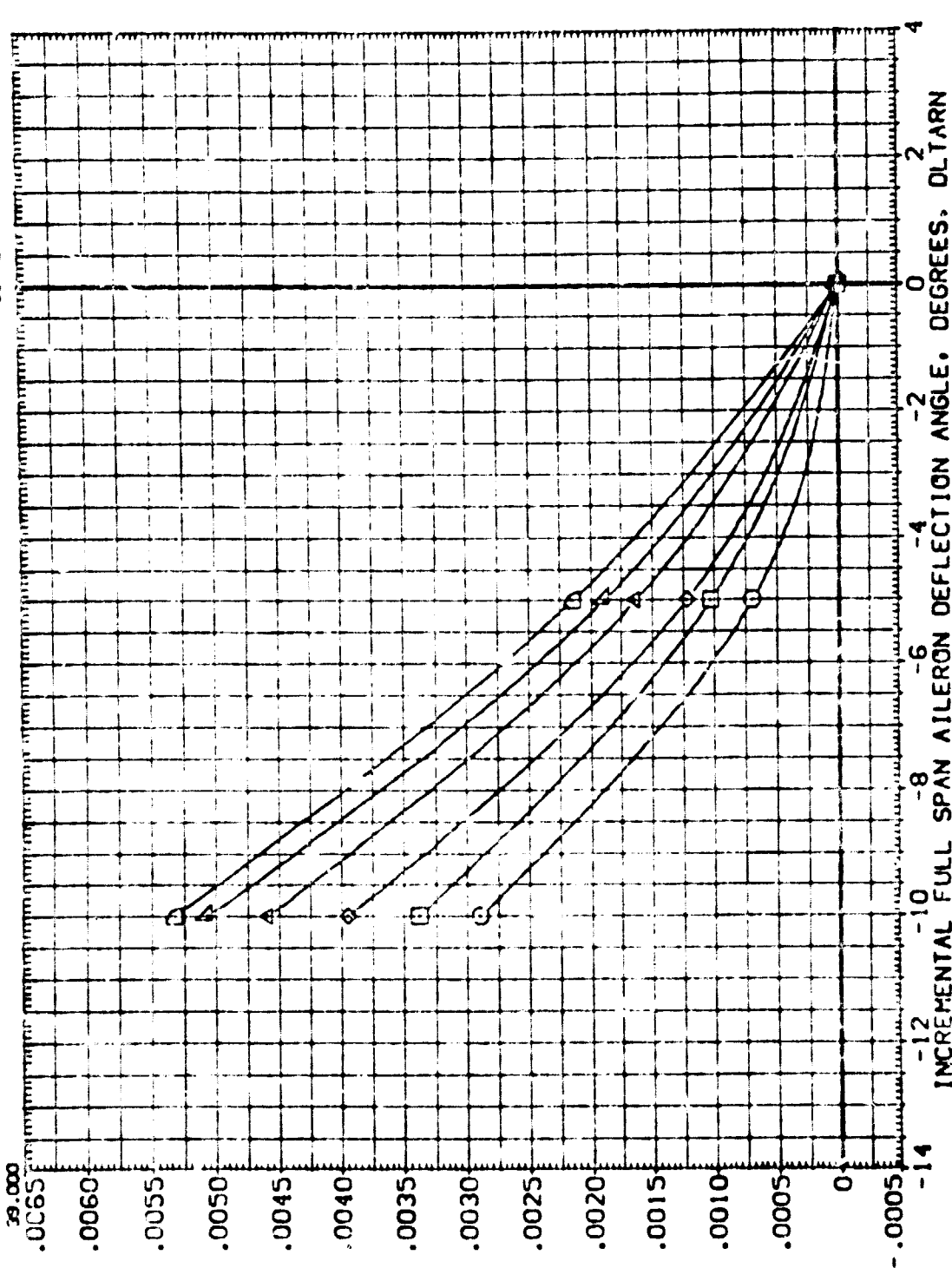


FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION



(KTWO24)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	17.000	MACH	8.000	DLBOFP
□	19.000	BETA	.000	SPDRPK
◇	21.000	RUDDER	.000	RVL
△	23.000		3.530	KTV001
▽	25.000		59.000	KTV024
△	27.000		.000	KTW070
▽	29.000		-10.000	DLTARN
△	31.000		.000	DLTARN
▽	33.000		2690.0000	SREF
△	35.000		474.8100	LRFF
▽	37.000		936.6800	SREF
△	39.000		1076.6800	KTRP
▽	41.000		.0000	KTRP
△	43.000		375.0000	ZMRP
▽	45.000		.0150	SCALE

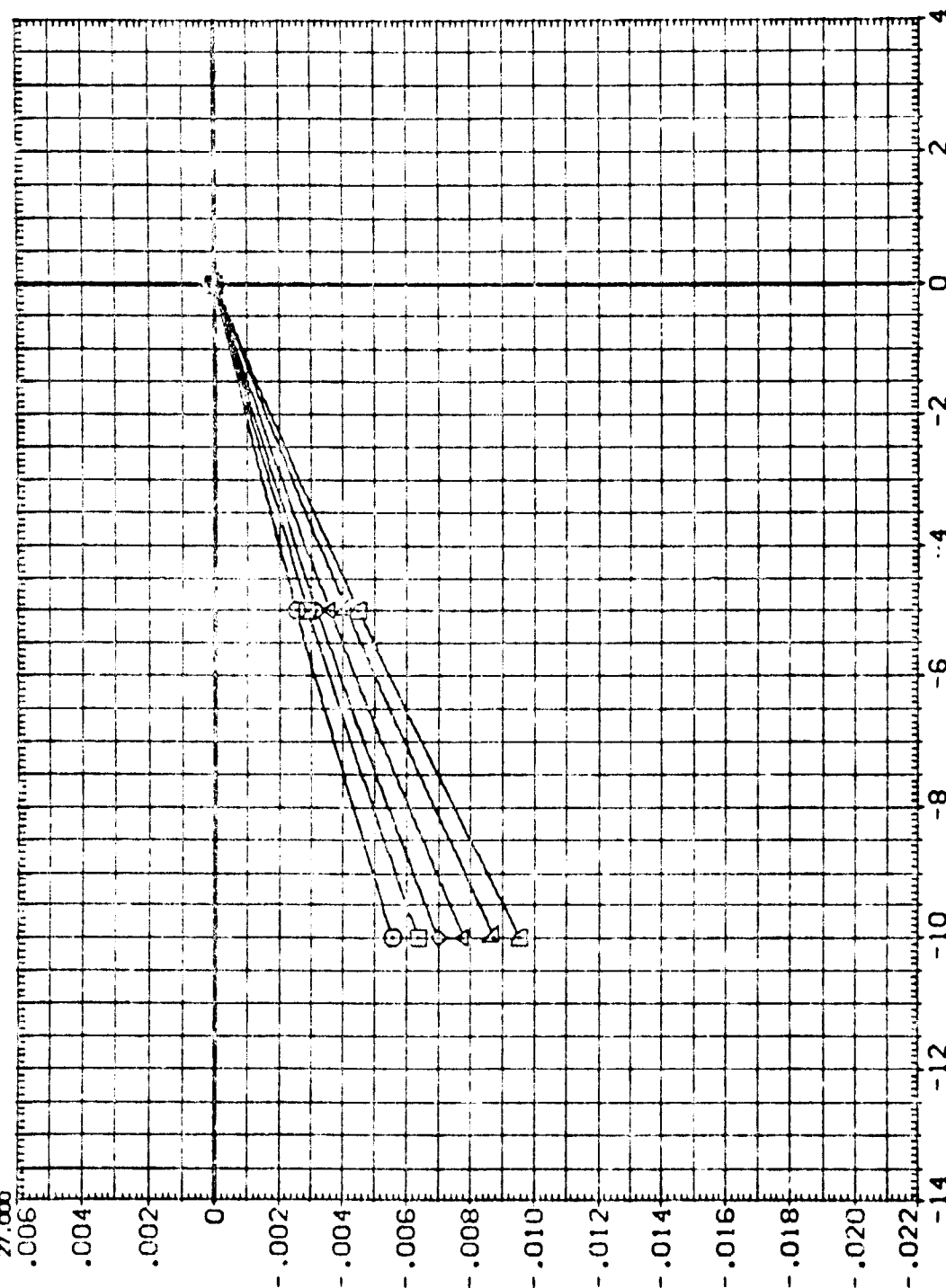


FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116  
(KTWD24)

## Synops

○□◇△△△

ALPHA	PAGE 1
29,000	BETA
31,000	RUDDER
33,000	

PARAMETRIC VALUES	
8,000	CLBUEFP
.000	SPDERK
.000	RNVL

	DATA SET	DATA SIZE
1	DATA001	10,000
2	DATA002	20,000
3	DATA003	30,000
4	DATA004	40,000
5	DATA005	50,000
6	DATA006	60,000
7	DATA007	70,000
8	DATA008	80,000
9	DATA009	90,000
10	DATA010	100,000

DATA SET 01  
K74070 -5,000

REFERENCE	INTEGRATION
200.000	IN.20
174.000	IN.20
136.000	IN.20
105.000	IN.20
375.000	IN.20
0.000	IN.20

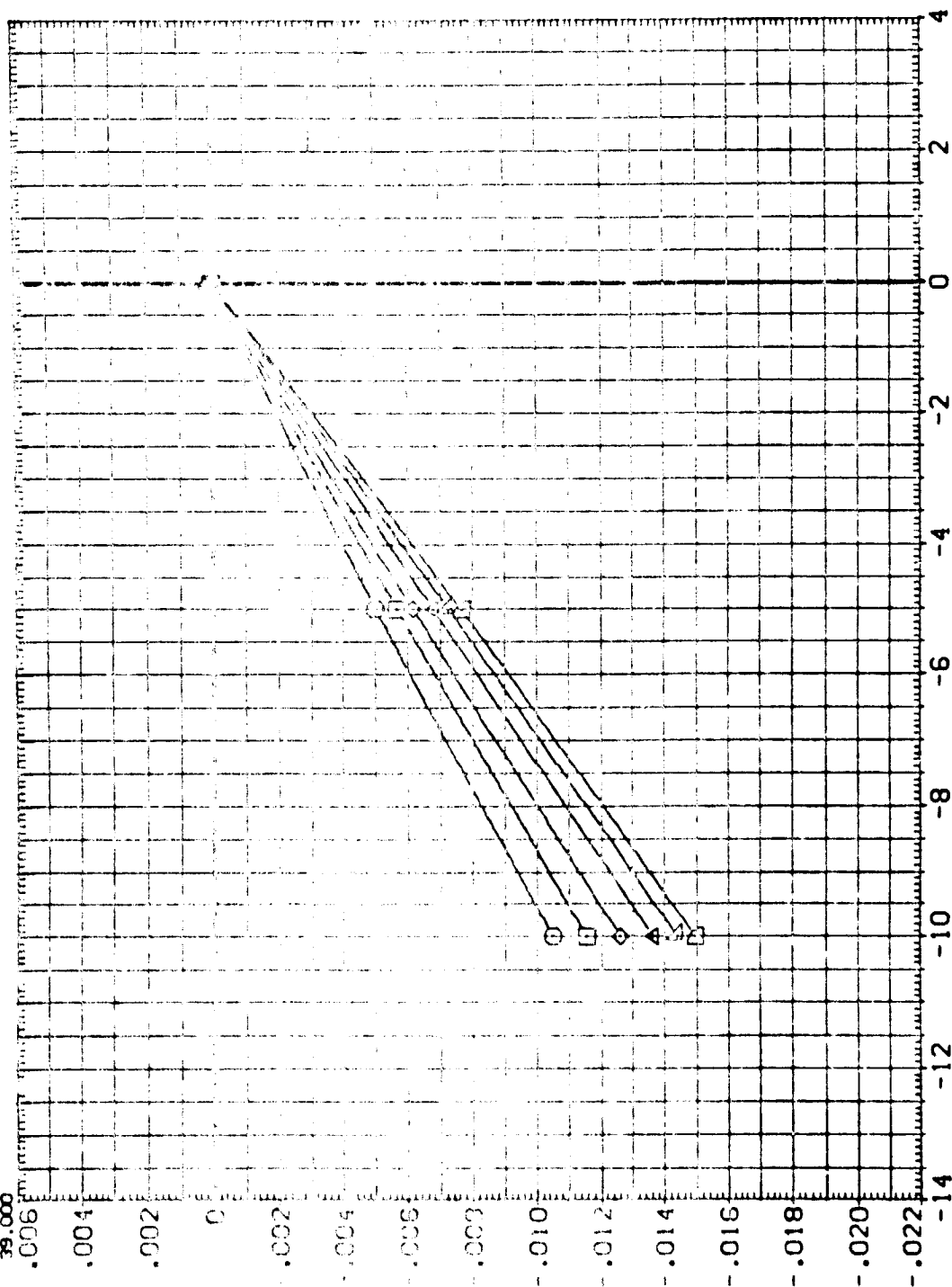


FIG. 10 INCREMENTAL EFFECTS OF AILERON DEFLECTION

(KTW024)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
○  
□  
◇

ALPHA  
41.000  
43.000  
45.000

MACH  
8.000  
.000  
RUDDER

PARAMETRIC VALUES  
DLBOFP  
SP08RK  
RVL

DATA SOURCE  
DLTARN  
KTW024  
KTW001

DATASET  
KTW070

DLTARN  
-5.000

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
XREF  
YREF  
ZREF  
SCALE

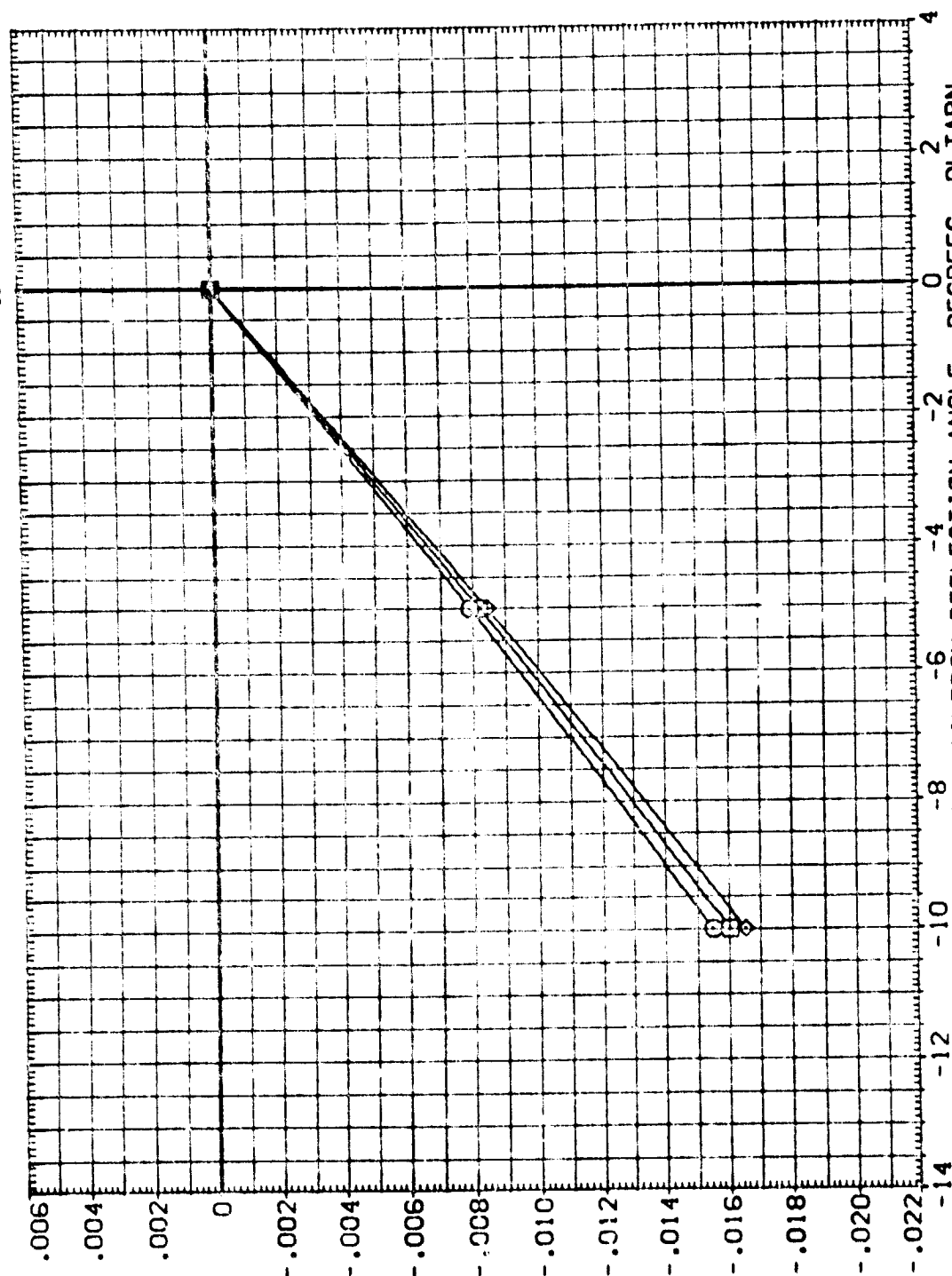


FIG. 10 INCREMENTAL EFFECTS OFAILERON DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V027)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	-10.000	-40.000	.000	CREF 2830.0000 50.00
(C1V030)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	-20.000	-20.000	.000	LINEF 173.5100 IN.
(C1V029)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	-10.000	-10.000	.000	CREF 325.5900 IN.
(C1V001)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	.000	.000	.000	XREF 1076.6000 IN.
(C1V028)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	10.000	10.000	.000	XREF 375.0000 IN.
						ZREF .0130
						SCALE

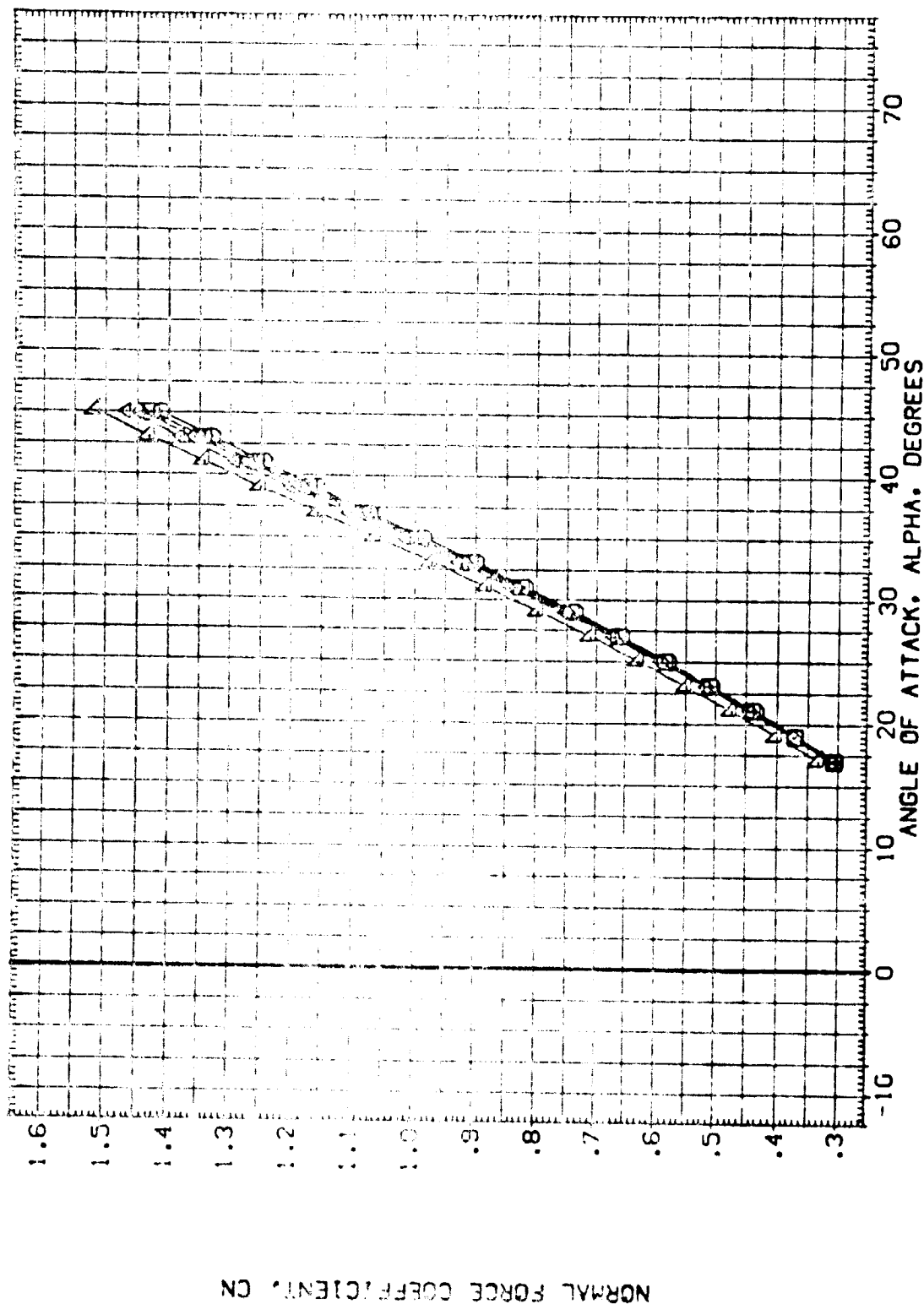


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDELECTED

(A) MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV027)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	-10.000	-40.000	.000	SREF 2690.0000 SO.FT.
(CTV030)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	-20.000	-20.000	.000	LREF 474.8100 IN.
(CTV033)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	-10.000	-10.000	.000	BREF 936.6800 IN.
(CTV001)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	10.000	10.000	.000	XREF 1076.6800 IN.X0
(CTV028)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	10.000	10.000	.000	WREF 375.0000 IN.Y0
						ZREF .0150
						SCALE

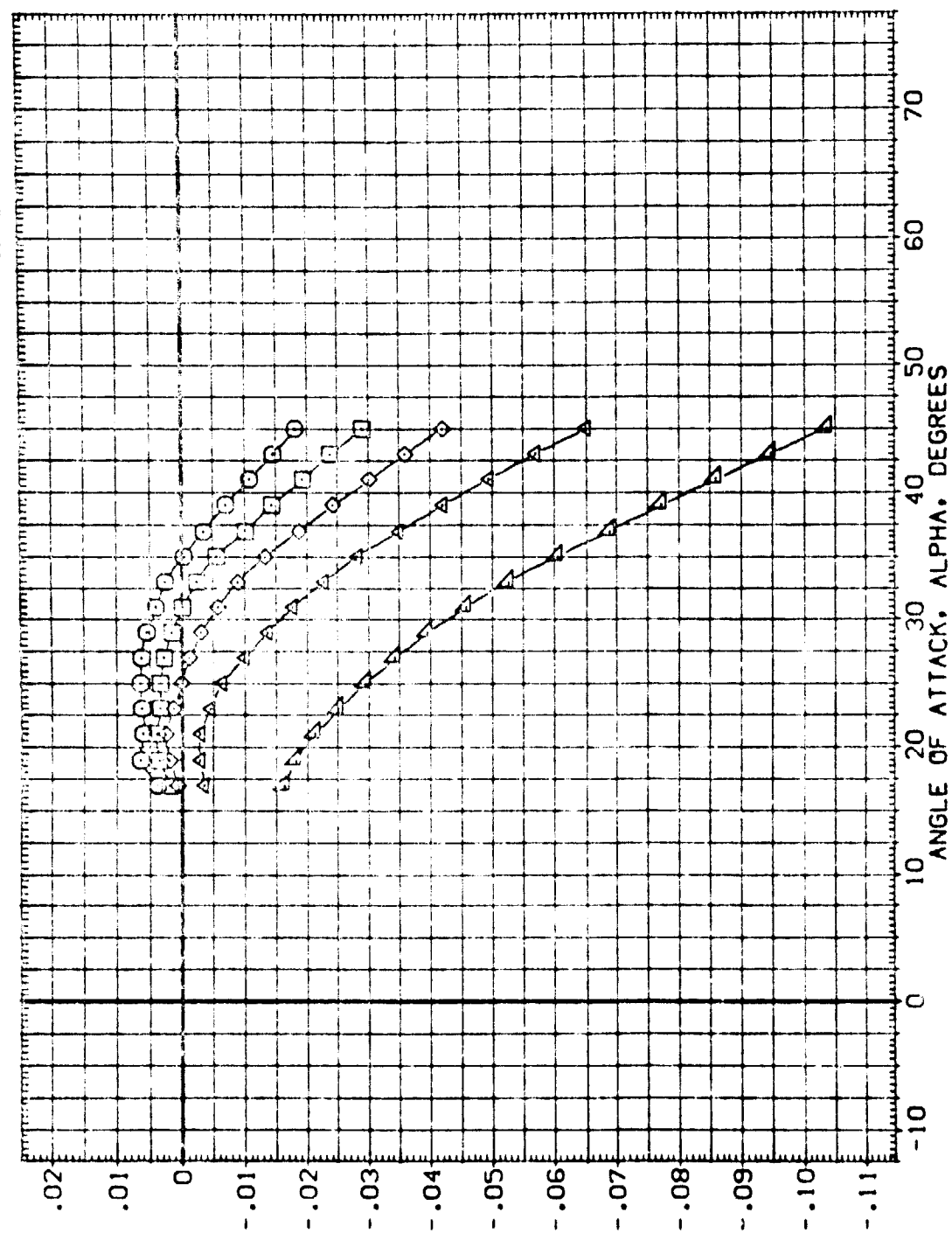


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(A)MACH = 8.00

PITCHING MOMENT COEFFICIENT AT 6.75 BODY LENGTH(AFT C. G.) CLAY

DATA SET SYMBOL	TEST CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	TEST DATA INFORMATION
(C1V027)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	-40.000	-40.000	.000	SNCF 2650.0000 53.471
(C1V030)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	-20.000	-20.000	.000	SNCF 471.0100 14.711
(C1V029)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	-10.000	-10.000	.000	SNCF 935.0000 14.711
(C1V001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	SNCF 1075.0000 14.711
(C1V028)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	10.000	10.000	.000	SNCF 375.0000 14.711

SCALE .0150

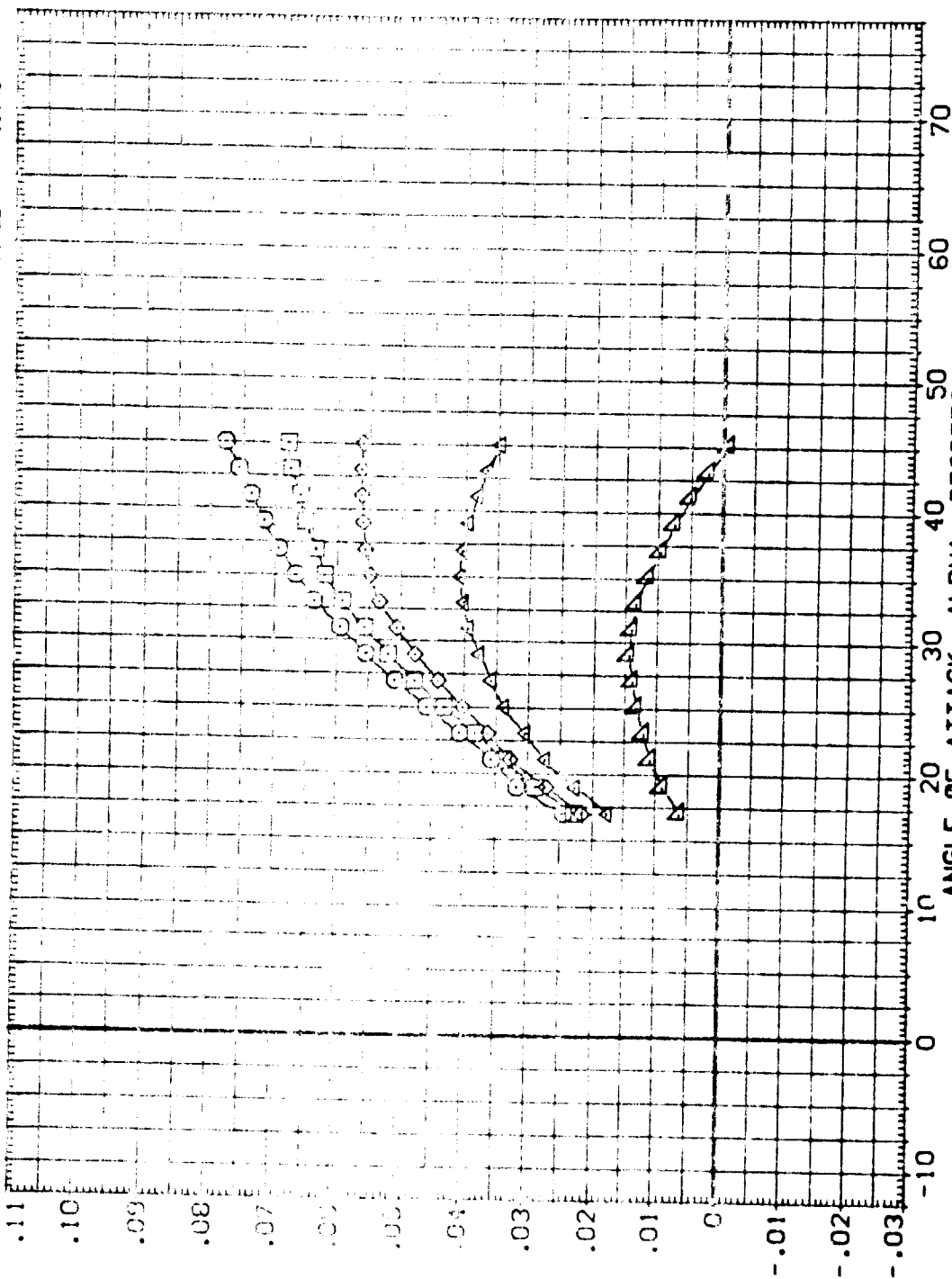


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V027)	DA79 826 C9 E43 F8 M16 N28 RS V8 V116	.000	-10.000	.000	.000	SREF 2690.0000 SC.FT.
(C1V030)	DA79 826 C9 E43 F8 M16 N28 RS V8 V116	.000	-20.000	.000	.000	LREF 474.8100 IN.
(C1V029)	DA79 826 C9 E43 F8 M16 N28 RS V8 V116	.000	-10.000	.000	.000	BREF 936.6800 IN.
(C1V001)	DA79 826 C9 E43 F8 M16 N28 RS V8 V116	.000	.000	.000	.000	YMRP 1076.6800 IN.
(C1V028)	DA79 826 C9 E43 F8 M16 N28 RS V8 V116	.000	10.000	10.000	.000	YMRP 375.0000 IN.
						ZMRP 375.0000 IN.
						SCALE .0150

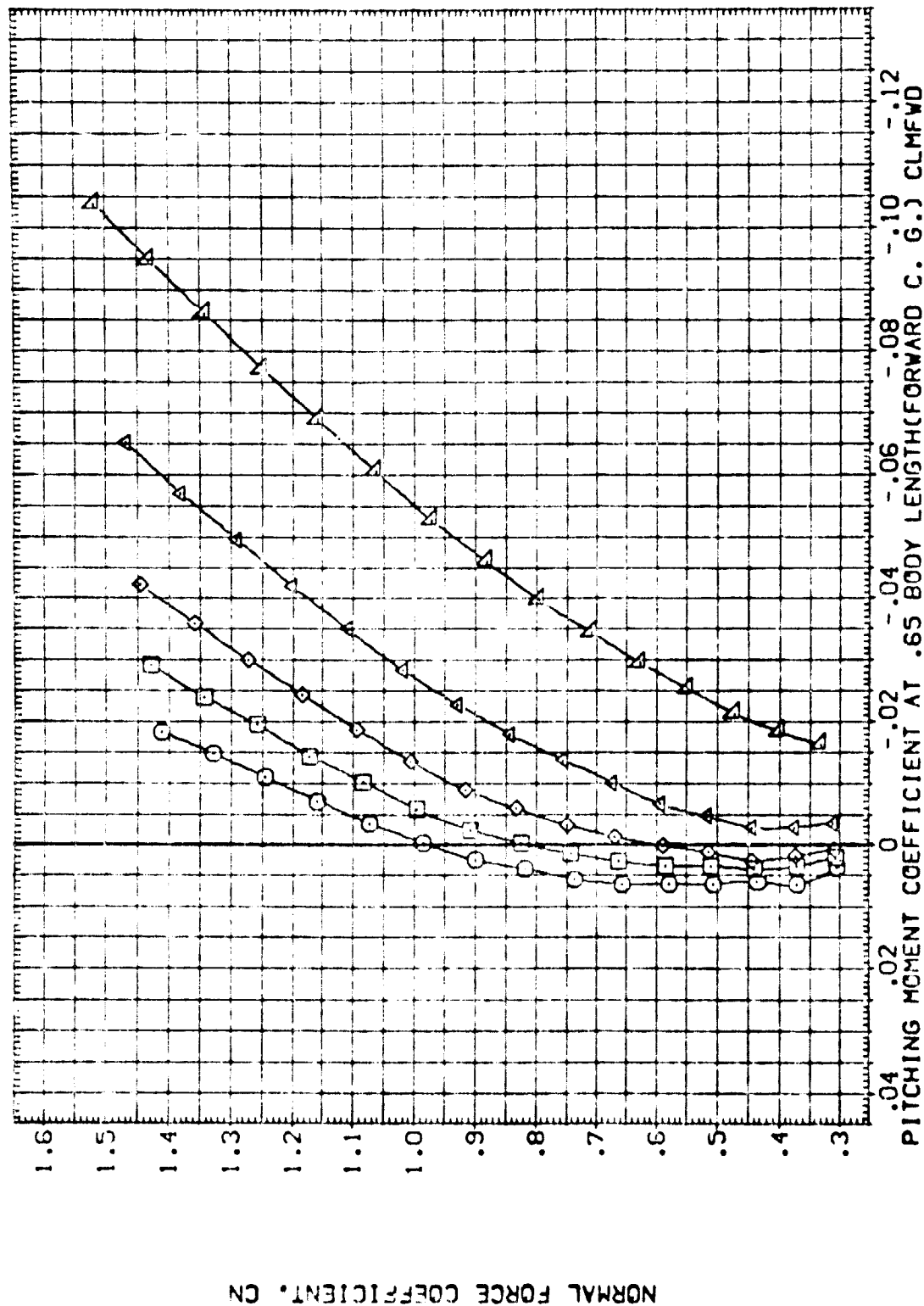
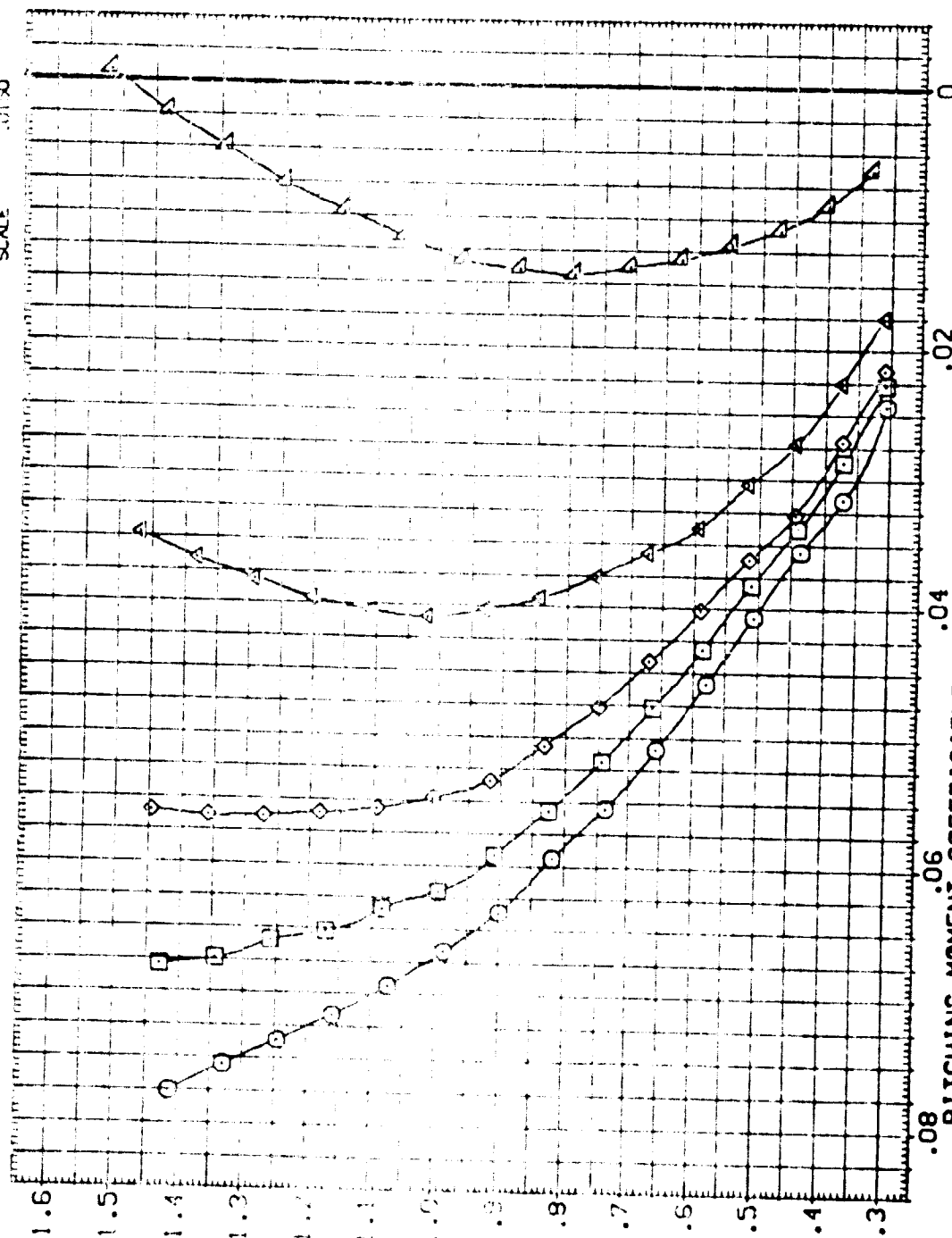


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-00	ELV-01	ELV-02	REFERENCE INFORMATION
(C10027)	2479 376 C9 E43 F8 H16 N28 R5 V8 V116	.000	-40.000	.000	SAFE 1650.0000 C9 E7.
(C10030)	2479 376 C9 E43 F8 H16 N28 R5 V8 V116	.000	-20.000	.000	SAFE 474.810 IN.
(C10029)	2479 376 C9 E43 F8 H16 N28 R5 V8 V116	.000	-10.000	.000	SAFE 936.0000 IN.
(C10001)	2479 876 C9 E43 F8 H16 N28 R3 V8 V116	.000	.000	.000	SAFE 1076.0000 IN.
(C10028)	2479 876 C9 E43 F8 H16 N28 R5 V8 V116	.000	10.000	.000	SAFE 375.0000 IN.
					SCALE .01 X0



**(A)MACH = 8.00**

PAGE 132



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L8	ELV-L1	ELV-R1	ELV-R8	REFERENCE INFORMATION
(CTV027)	Q479 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	-40.000	-40.000	.000	SREF 2690.0000 50.FT.
(CTV030)	Q479 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	-20.000	-20.000	.000	LREF 474.9100 IN.
(CTV033)	Q479 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	-10.000	-10.000	.000	SREF 936.6800 IN.
(CTV001)	Q479 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	.000	.000	.000	XREF 1076.6900 IN.X0
(CTV028)	Q479 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	10.000	10.000	.000	XREF 375.0000 IN.Y0
						ZREF .0150 SCALE

CENTER OF PRESSURE LOCATION AS A FRACTION OF BODY LENGTH, XCP/L

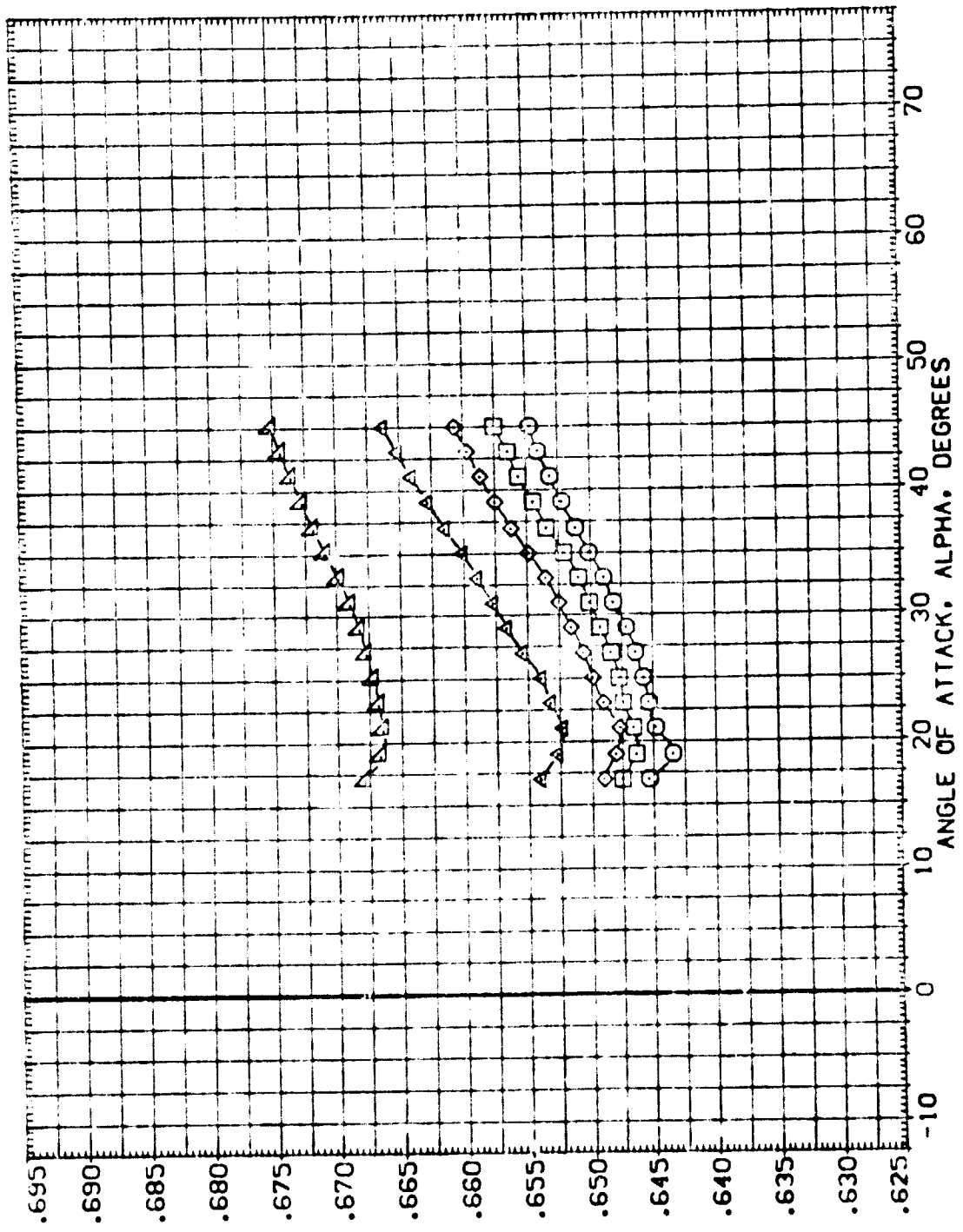


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V027)	CA79 326 C9 E43 F8 M16 N28 RS V8 V116	.000	-40.000	-40.000	.000	SIZE 3000.0000 50.0000
(C1V030)	CA79 326 C9 E43 F8 M16 N28 RS V8 V116	.000	-40.000	-40.000	.000	SIZE 3000.0000 50.0000
(C1V029)	CA79 326 C9 E43 F8 M16 N28 RS V8 V116	.000	-40.000	-40.000	.000	SIZE 3000.0000 50.0000
(C1V001)	CA79 326 C9 E43 F8 M16 N28 RS V8 V116	.000	-40.000	-40.000	.000	SIZE 3000.0000 50.0000
(C1V028)	CA79 326 C9 E43 F8 M16 N28 RS V8 V116	.000	-40.000	-40.000	.000	SIZE 3000.0000 50.0000

SCALE .0150

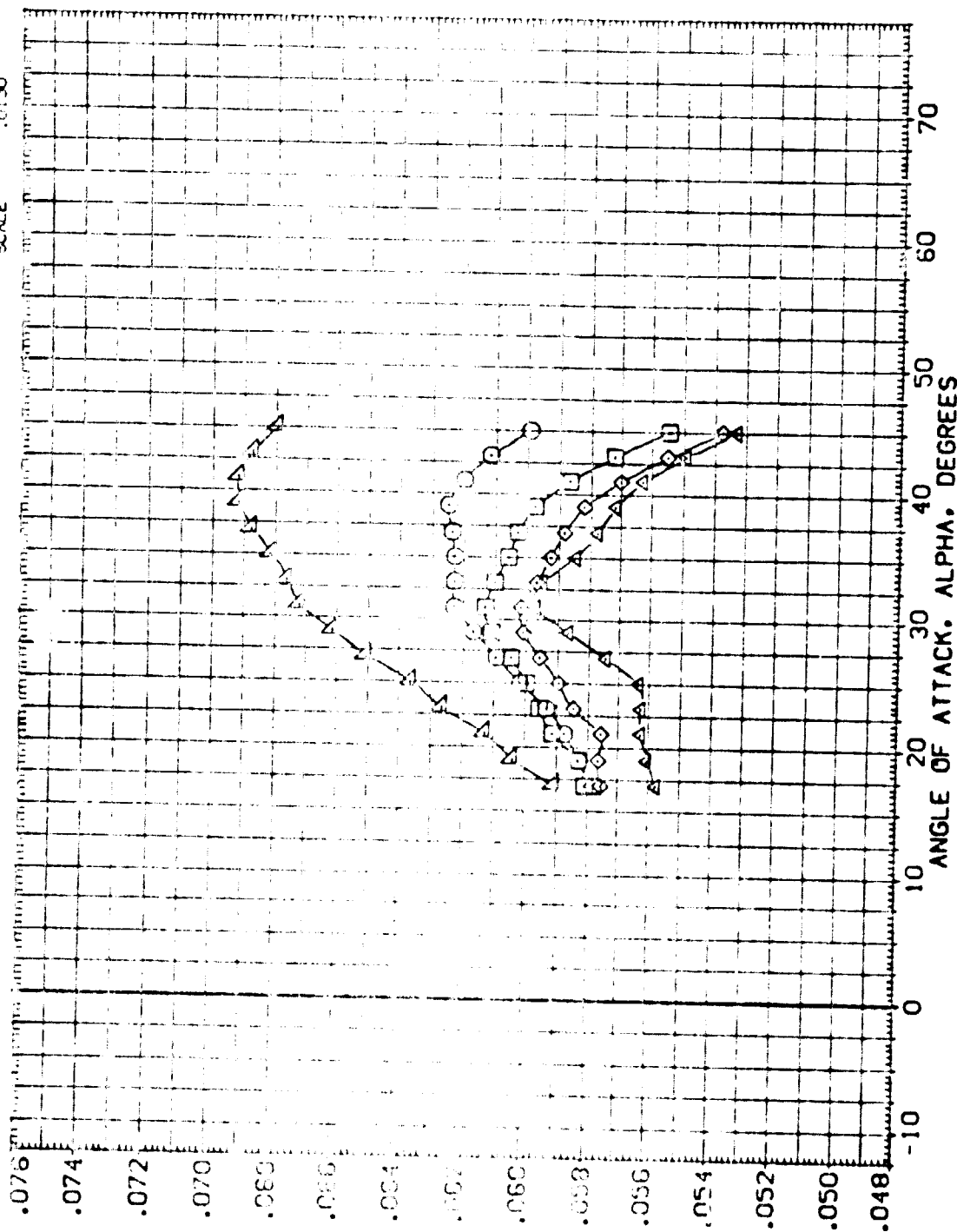


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V027)	0A79 B26 C9 E43 F8 M16 N08 R5 V8 V116	.000	-40.000	-40.000	.000	SREF 2690.0000 SO.FT.
(C1V030)	0A79 B26 C9 E43 F8 M16 N08 R5 V8 V116	.000	-20.000	-20.000	.000	LREF 474.8100 IN.
(C1V031)	0A79 B26 C9 E43 F8 M16 N08 R5 V8 V116	.000	-10.000	-10.000	.000	BREF 936.6800 IN.
(C1V032)	0A79 B26 C9 E43 F8 M16 N08 R5 V8 V116	.000	.000	.000	.000	XREF 1076.0000 IN.
(C1V033)	0A79 B26 C9 E43 F8 M16 N08 R5 V8 V116	.000	10.000	10.000	.000	YREF 375.0000 IN.
						ZREF .0150

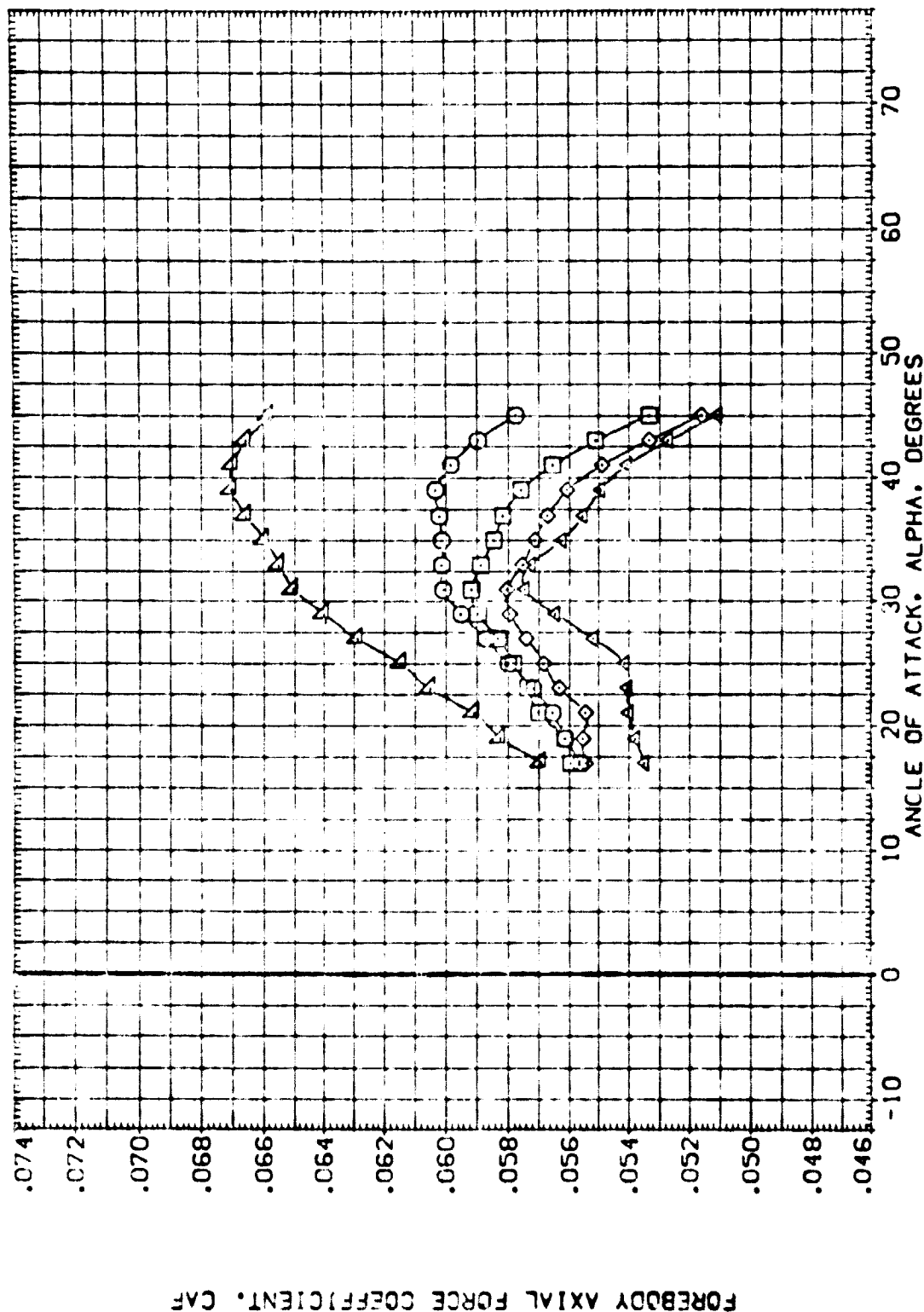


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDELECTED

(A)MACH = 8.00



DATA SET SYMOL      CONFIGURATION DESCRIPTION      REFERENCE INFORMATION

DATA SET SYMOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	DTF	SCALE
(C1V027)	Q9 E43 F8 H16 N28 RS V8 V116	.000	-40.000	-40.000	.000	2650.000	50.00
(C1V030)	Q9 E43 F8 H16 N28 RS V8 V116	.000	-20.000	-20.000	.000	474.8100	IN.
(C1V029)	Q9 E43 F8 H16 N28 RS V8 V116	.000	-10.000	-10.000	.000	905.8300	IN.
(C1V031)	Q9 E43 F8 H16 N28 RS V8 V116	.000	.000	.000	.000	1076.000	IN.
(C1V028)	Q9 E43 F8 H16 N28 RS V8 V116	.000	10.000	10.000	.000	275.000	IN.

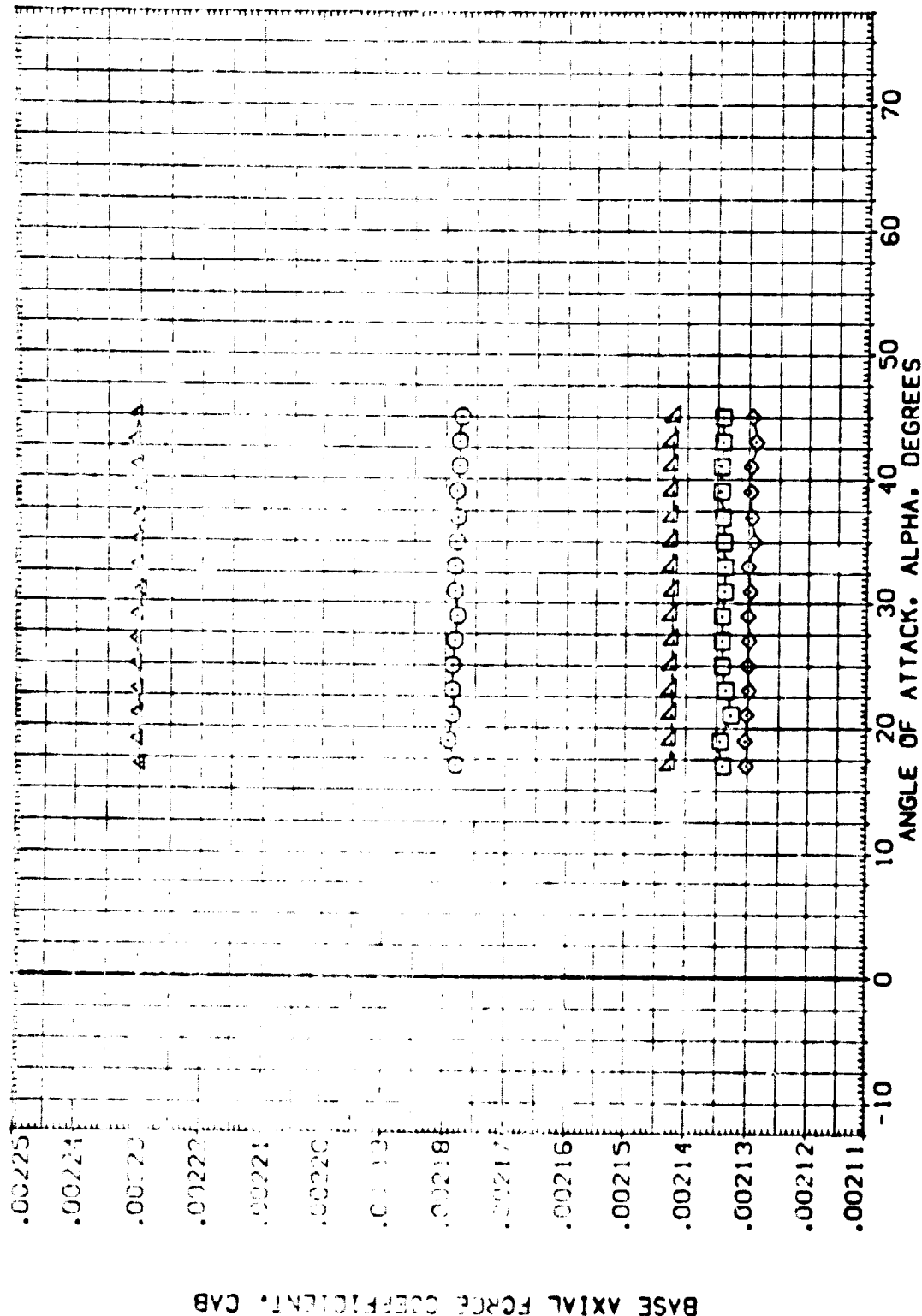


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1007)	Q473 926 C9 E43 F8 M16 N28 RS V8 V1.6	.000	-40.000	-40.000	.000	SREF 2600.0000 SQ.FT.
(C1030)	Q473 876 C9 E43 F8 M16 N28 RS V8 V1.6	.000	-20.000	-20.000	.000	LREF 474.8100 IN.
(C1029)	Q473 876 C9 E43 F8 M16 N28 RS V8 V1.6	.000	-10.000	-10.000	.000	BREF 936.6800 IN.
(C1031)	Q473 926 C9 E43 F8 M16 N28 RS V8 V1.6	.000	.000	.000	.000	XREF 1075.0000 IN.
(C1028)	Q473 926 C9 E43 F8 M16 N28 RS V8 V1.6	.000	10.000	10.000	.000	YREF 375.0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

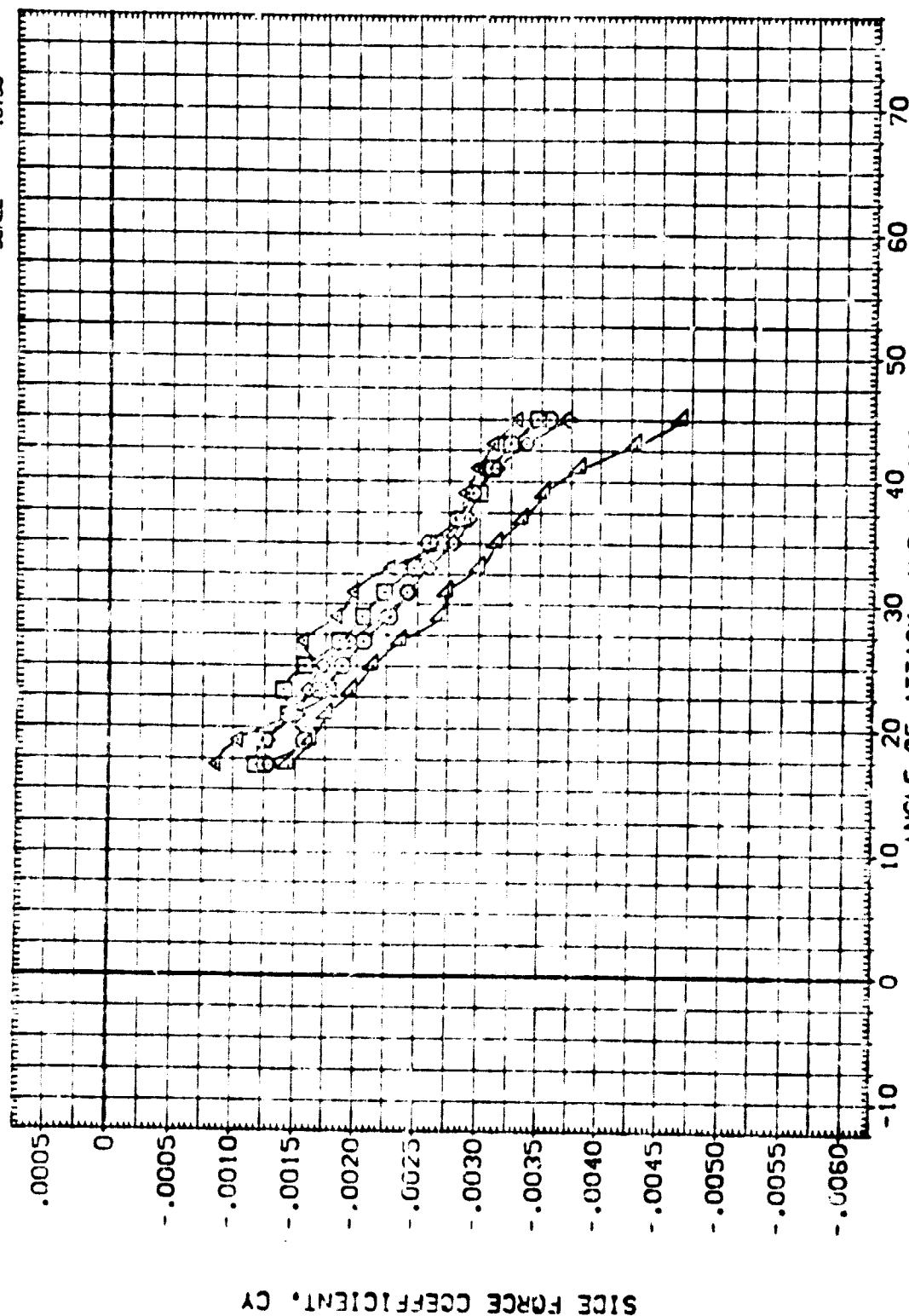


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ATV077)	0A79	B26	C9	E43	F8	M16	N09	R5	V8	V116
(ATV078)	0A79	B26	C9	E43	F8	M16	N08	R5	V8	V116
(ATV079)	0A79	B26	C9	E43	F8	M16	N08	R5	V8	V116
(ATV080)	0A79	B26	C9	E43	F8	M16	N08	R5	V8	V116
(ATV081)	0A79	B26	C9	E43	F8	M16	N08	R5	V8	V116

REFERENCE INFORMATION

SRF	2690	0.00	50	FT.
LRP	474	8.00	IN.	
BRP	768	8.00	IN.	
YRP	1076	8.00	IN.	
ZRP	975	0.00	IN.	
SCALE			0.150	

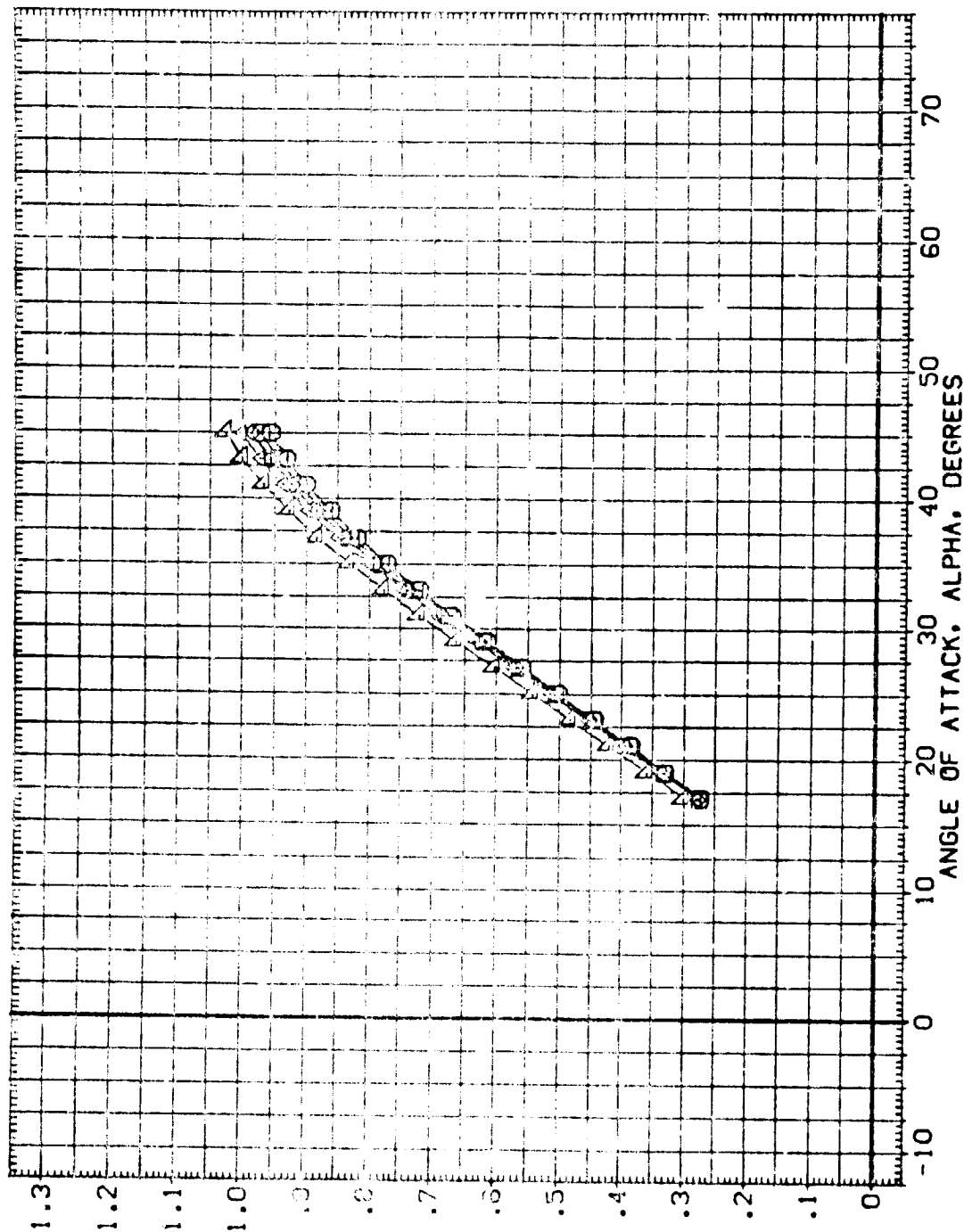


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L3	ELV-L1	ELV-R1	ELV-R3	REFERENCE INFORMATION
[ATV027]	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	-40.000	-40.000	.000	SRF 2690.0000 50.FT.
[ATV030]	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	-20.000	-20.000	.000	LREF 474.8100 IN.
[ATV029]	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	-10.000	-10.000	.000	BREF 936.6800 IN.
[ATV001]	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	10.000	10.000	.000	XREF 1076.0000 IN.
[ATV028]	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	10.000	10.000	.000	YREF 375.0000 IN.
						ZREF .0150
						SCALE

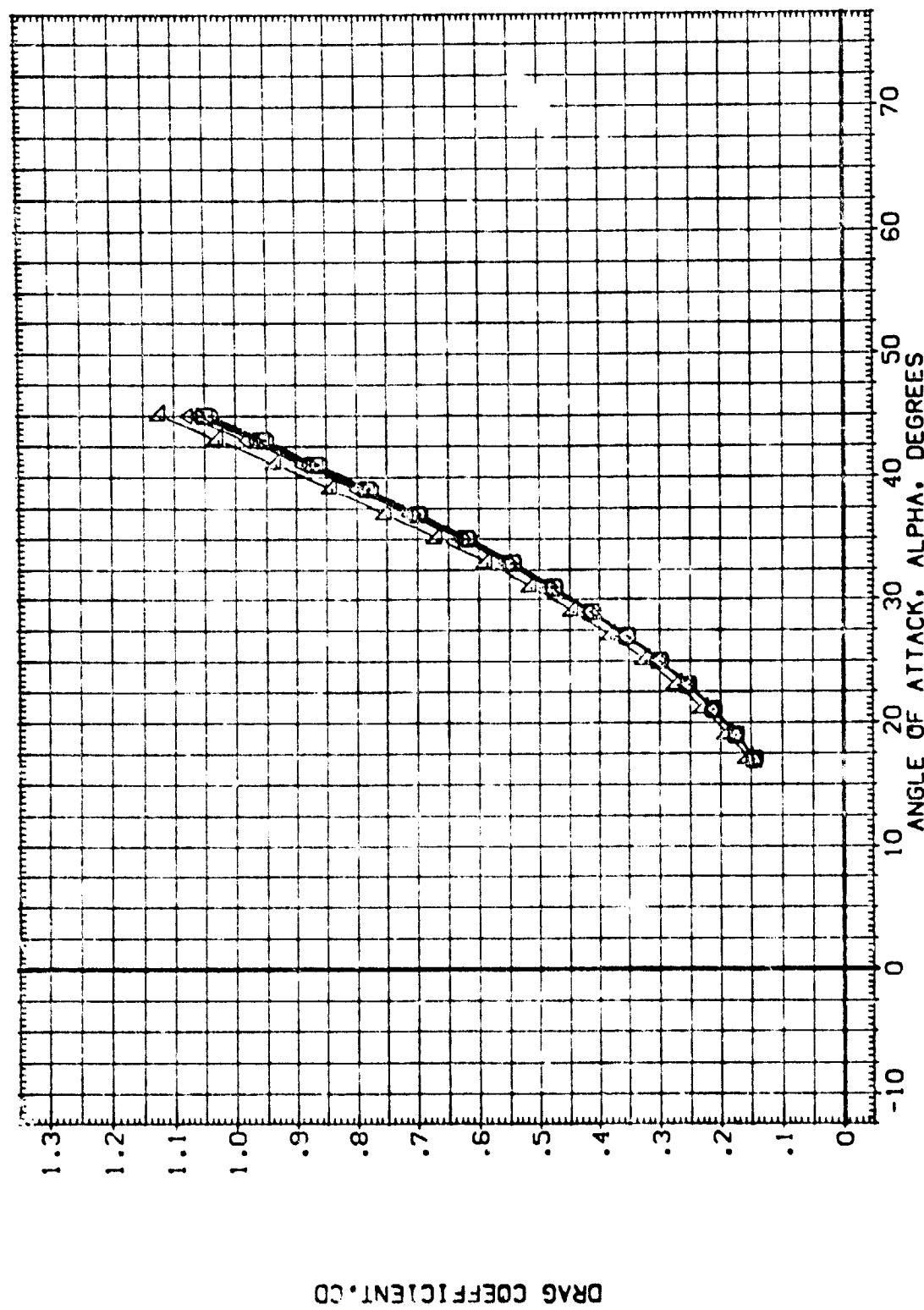


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(ATW077)	QAY9 B26 C9 E43 F8 H16 N28 P5 V8 V116	.000	-40.000	-40.000	.000	SREF 2630.0000 SQ.FT.
(ATW030)	QAY9 B26 C9 E43 F8 H16 N28 P5 V8 V116	.000	-20.000	-20.000	.000	LREF 474.8100 IN.
(ATW029)	QAY9 B26 C9 E43 F8 H16 N28 P5 V3 V116	.000	-10.000	-10.000	.000	BREF 936.5000 IN.
(ATW001)	QAY9 B26 C9 E43 F8 H16 N28 P5 V3 V116	.000	.000	.000	.000	XREF 1076.0000 IN.
(ATW028)	QAY9 B26 C9 E43 F8 H16 N28 P5 V3 V116	.000	10.000	10.000	.000	YREF 375.0000 IN.
						SCALE .0150

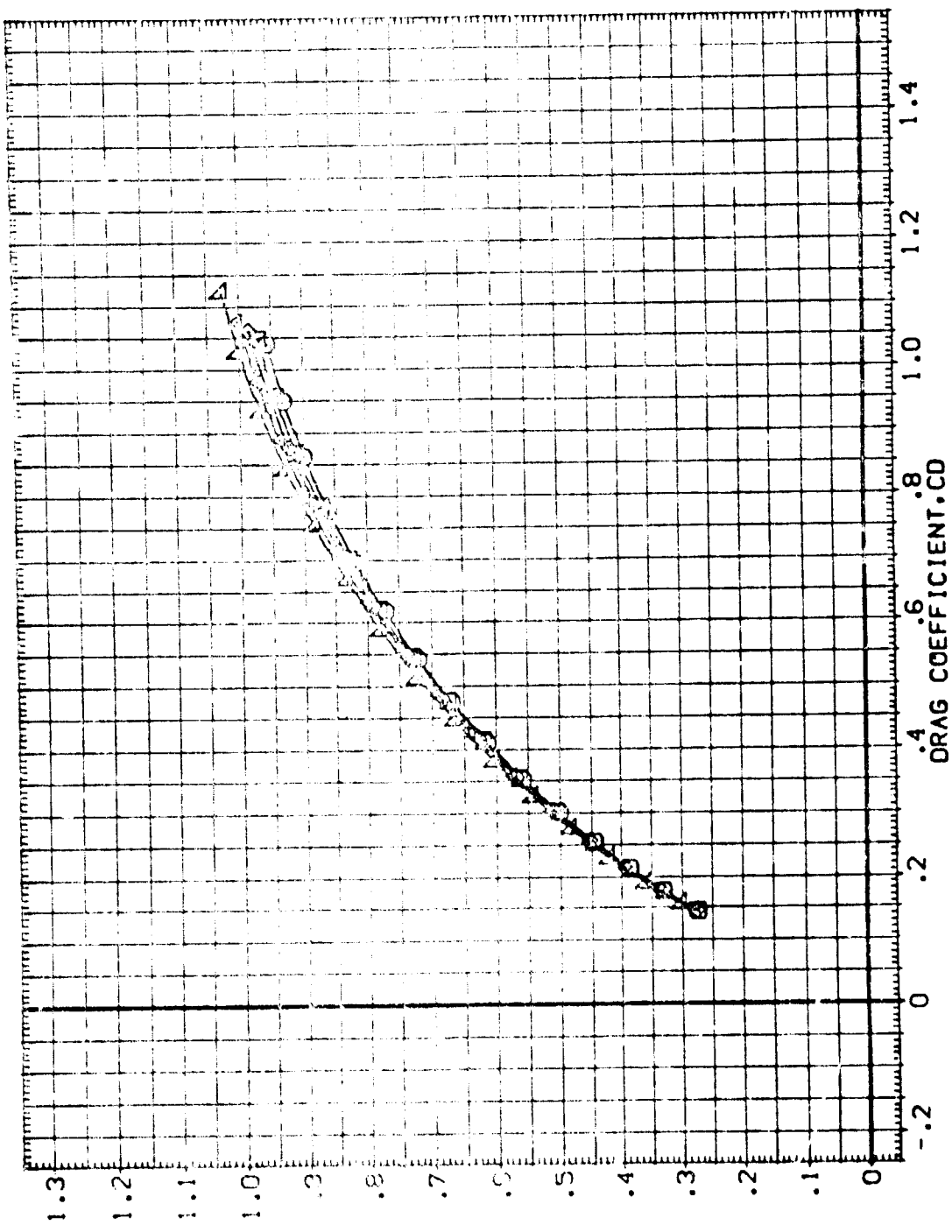


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(A)MACH = 8.00

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	CLV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(ATV027)	□	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116		.000	-40.000	-40.000	.000	SREF 2690.0000 SQ.FT.
(ATV030)	□	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116		.000	-20.000	-20.000	.000	LREF 474.8100 IN.
(ATV028)	□	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116		.000	-10.000	-10.000	.000	BREF 936.6800 IN.X0
(ATV001)	□	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116		.000	10.000	10.000	.000	XREF 1076.6800 IN.X0
(ATV029)	□	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116		.000	10.000	10.000	.000	YREF 375.0000 IN.Y0
								ZREF .0150

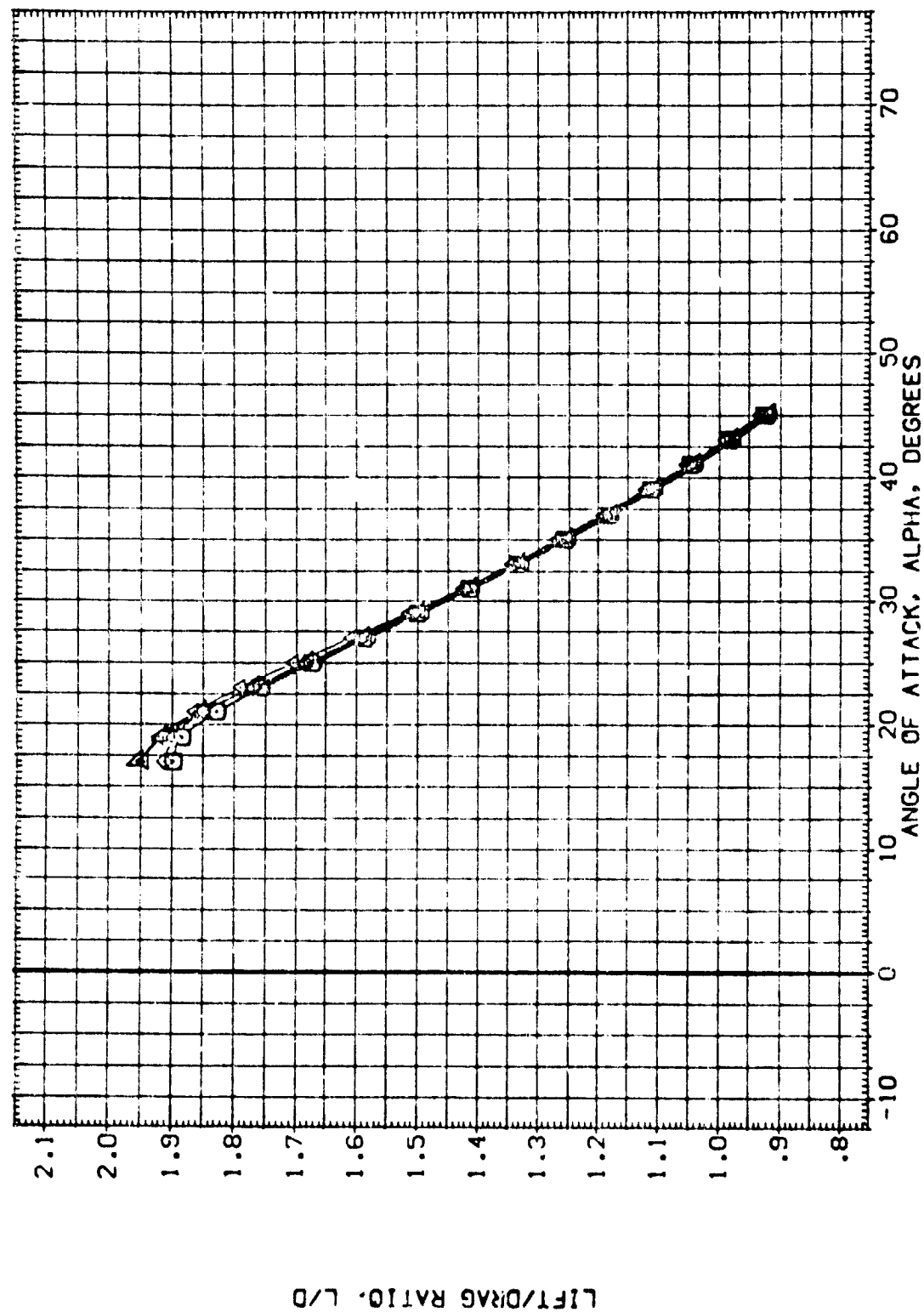


FIG. 11 INBOARD ELEVON EFFECTIVENESS WITH OUTBOARD UNDEFLECTED

(A)MACH = 8.00

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	17.000	8.000	BETA	.000 DATASET	2690.0000 SQ.FT.
□	19.000	55.000	RUDGER	.000 DTW027	174.8100 IN.
◊	21.000	3.530		.000 DTW028	936.6800 IN.
◊	23.000			.000 DTW029	1076.6800 IN.
◊	25.000			.000 DTW030	1076.6800 IN.
◊	27.000			.000 DTW031	1076.6800 IN.
				.000 DTW032	1076.6800 IN.
				.000 DTW033	1076.6800 IN.
				.000 DTW034	1076.6800 IN.
				.000 DTW035	1076.6800 IN.
				.000 DTW036	1076.6800 IN.
				.000 DTW037	1076.6800 IN.
				.000 DTW038	1076.6800 IN.
				.000 DTW039	1076.6800 IN.
				.000 DTW040	1076.6800 IN.
				.000 DTW041	1076.6800 IN.
				.000 DTW042	1076.6800 IN.
				.000 DTW043	1076.6800 IN.
				.000 DTW044	1076.6800 IN.
				.000 DTW045	1076.6800 IN.
				.000 DTW046	1076.6800 IN.
				.000 DTW047	1076.6800 IN.
				.000 DTW048	1076.6800 IN.
				.000 DTW049	1076.6800 IN.
				.000 DTW050	1076.6800 IN.
				.000 DTW051	1076.6800 IN.
				.000 DTW052	1076.6800 IN.
				.000 DTW053	1076.6800 IN.
				.000 DTW054	1076.6800 IN.
				.000 DTW055	1076.6800 IN.
				.000 DTW056	1076.6800 IN.
				.000 DTW057	1076.6800 IN.
				.000 DTW058	1076.6800 IN.
				.000 DTW059	1076.6800 IN.
				.000 DTW060	1076.6800 IN.
				.000 DTW061	1076.6800 IN.
				.000 DTW062	1076.6800 IN.
				.000 DTW063	1076.6800 IN.
				.000 DTW064	1076.6800 IN.
				.000 DTW065	1076.6800 IN.
				.000 DTW066	1076.6800 IN.
				.000 DTW067	1076.6800 IN.
				.000 DTW068	1076.6800 IN.
				.000 DTW069	1076.6800 IN.
				.000 DTW070	1076.6800 IN.
				.000 DTW071	1076.6800 IN.
				.000 DTW072	1076.6800 IN.
				.000 DTW073	1076.6800 IN.
				.000 DTW074	1076.6800 IN.
				.000 DTW075	1076.6800 IN.
				.000 DTW076	1076.6800 IN.
				.000 DTW077	1076.6800 IN.
				.000 DTW078	1076.6800 IN.
				.000 DTW079	1076.6800 IN.
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				.000 DTW083	1076.6800 IN.
				.000 DTW084	1076.6800 IN.
				.000 DTW085	1076.6800 IN.
				.000 DTW086	1076.6800 IN.
				.000 DTW087	1076.6800 IN.
				.000 DTW088	1076.6800 IN.
				.000 DTW089	1076.6800 IN.
				.000 DTW090	1076.6800 IN.
				.000 DTW091	1076.6800 IN.
				.000 DTW092	1076.6800 IN.
				.000 DTW093	1076.6800 IN.
				.000 DTW094	1076.6800 IN.
				.000 DTW095	1076.6800 IN.
				.000 DTW096	1076.6800 IN.
				.000 DTW097	1076.6800 IN.
				.000 DTW098	1076.6800 IN.
				.000 DTW099	1076.6800 IN.
				.000 DTW100	1076.6800 IN.

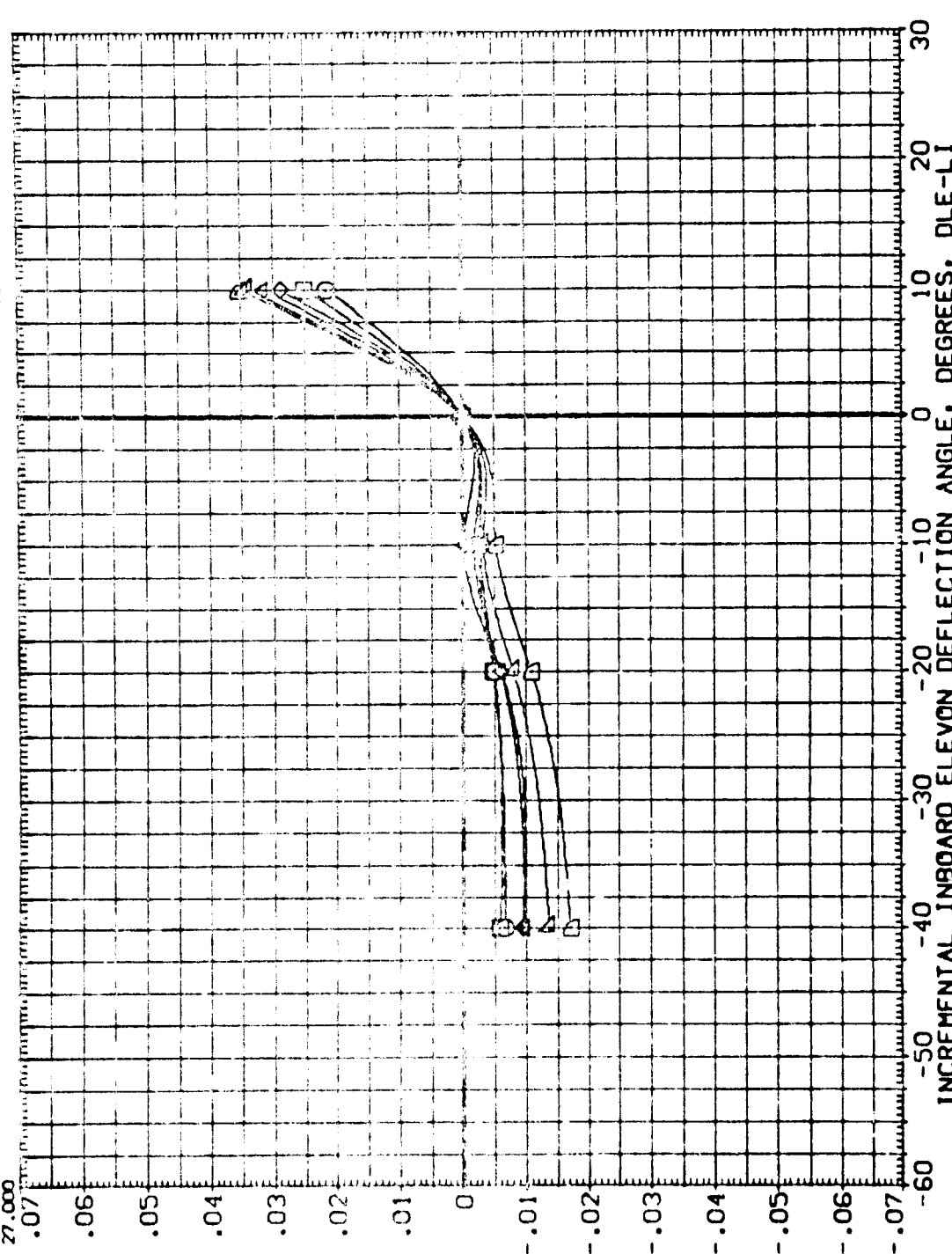


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
29.000	8.000	BETA	DLE-LI	2690.0000
31.000	55.000	RUDER	DTW027	474.8100
33.000	3.530		DTW028	936.6800
35.000				1076.6800
37.000				375.0000
39.000				375.0000
				SCALE .0150

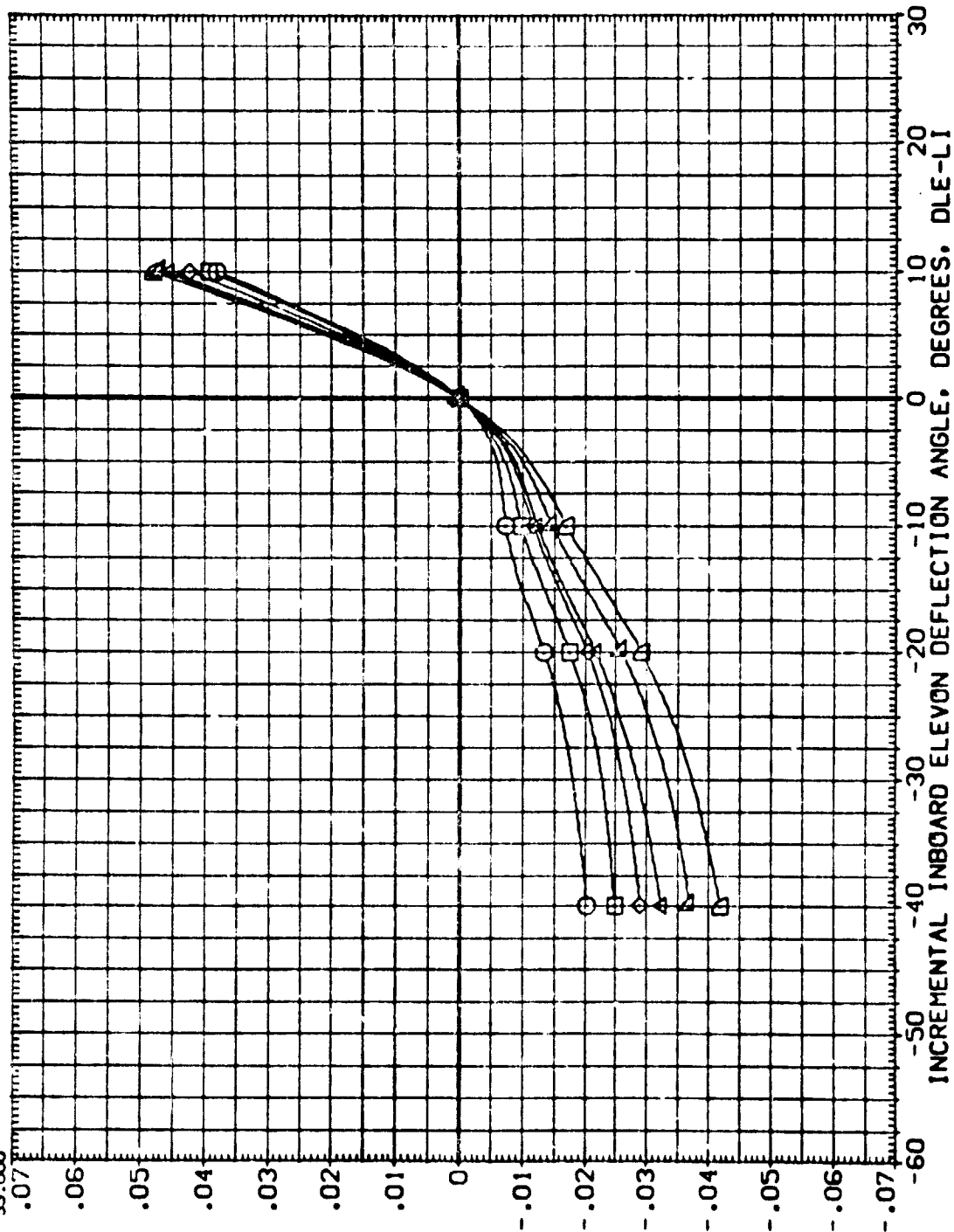


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLE-LI	REFERENCE INFORMATION
○	41.000	8.000	DELTA	.000	DTW027	-20.000	CTEF 2690.0000 SQ. FT.
□	43.000	SP000K	RUDDER	.000	DTW028	.000	LREF 474.8100 IN.
◇	45.000	REV/L		.000	DTW029	.000	BREF 956.8800 IN.
							YREF 1076.8800 IN.
							ZREF .0000 IN.
							YREF 375.0000 IN.
							ZREF .0150 IN.

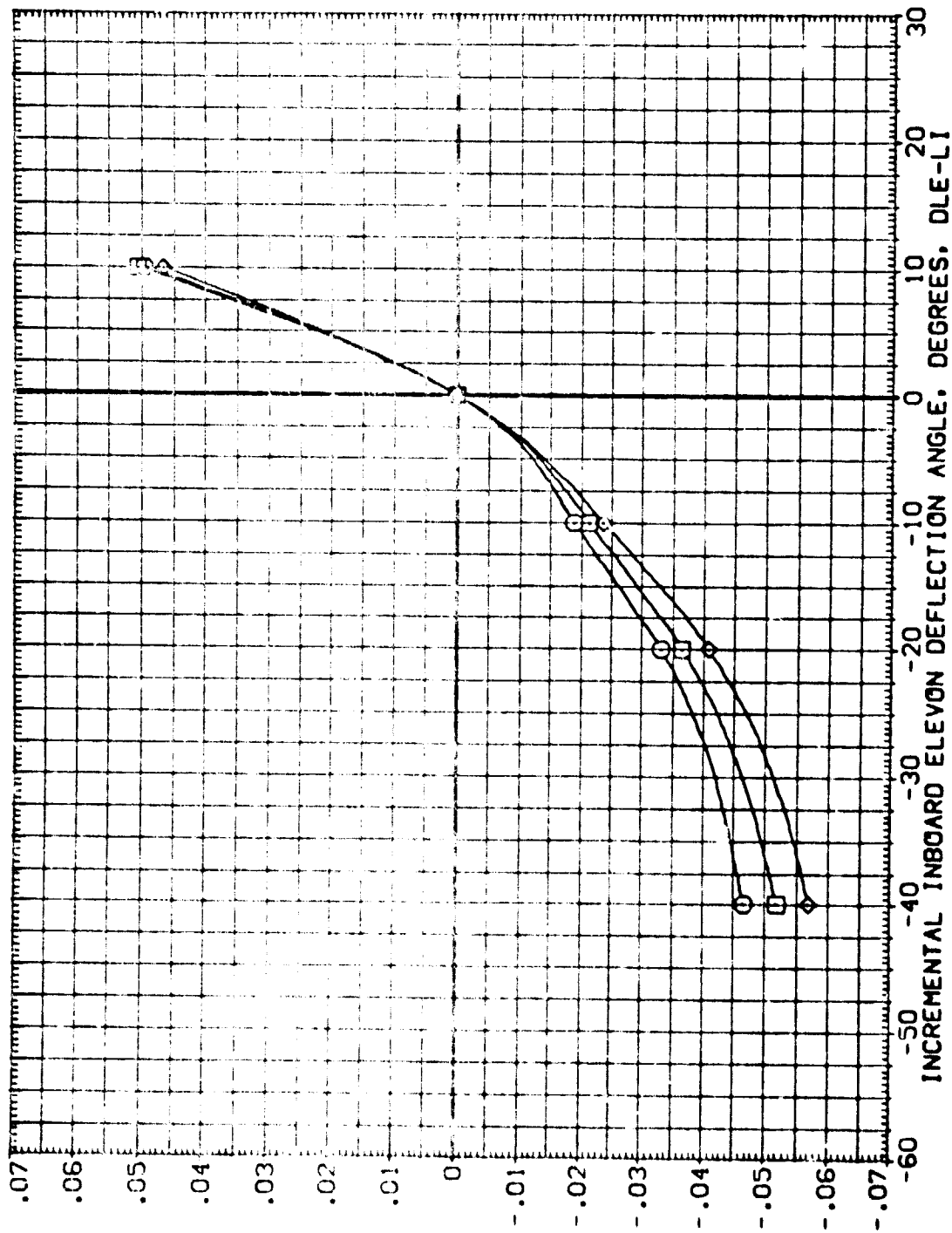


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

(DTW027)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLE-LI	REF	REFERENCE INFORMATION
□	17.000	SP03 W	8.000 BETA	.000 DATASE	D1W030	-20.000	LREF	2650.0000 SQ.FT.
□	19.000	SP03 W	55.000 RUDDER	.000 DTW027	D1W001	.000	BREF	474.8100 IN.
□	21.000	RV/L	3.530	.000 DTW029			XREF	936.6800 IN.XG
□	23.000			.000 DTW028			YREF	1076.6800 IN.YG
□	25.000						ZREF	375.0000 IN.ZG
□	27.000						SCALE	.0150

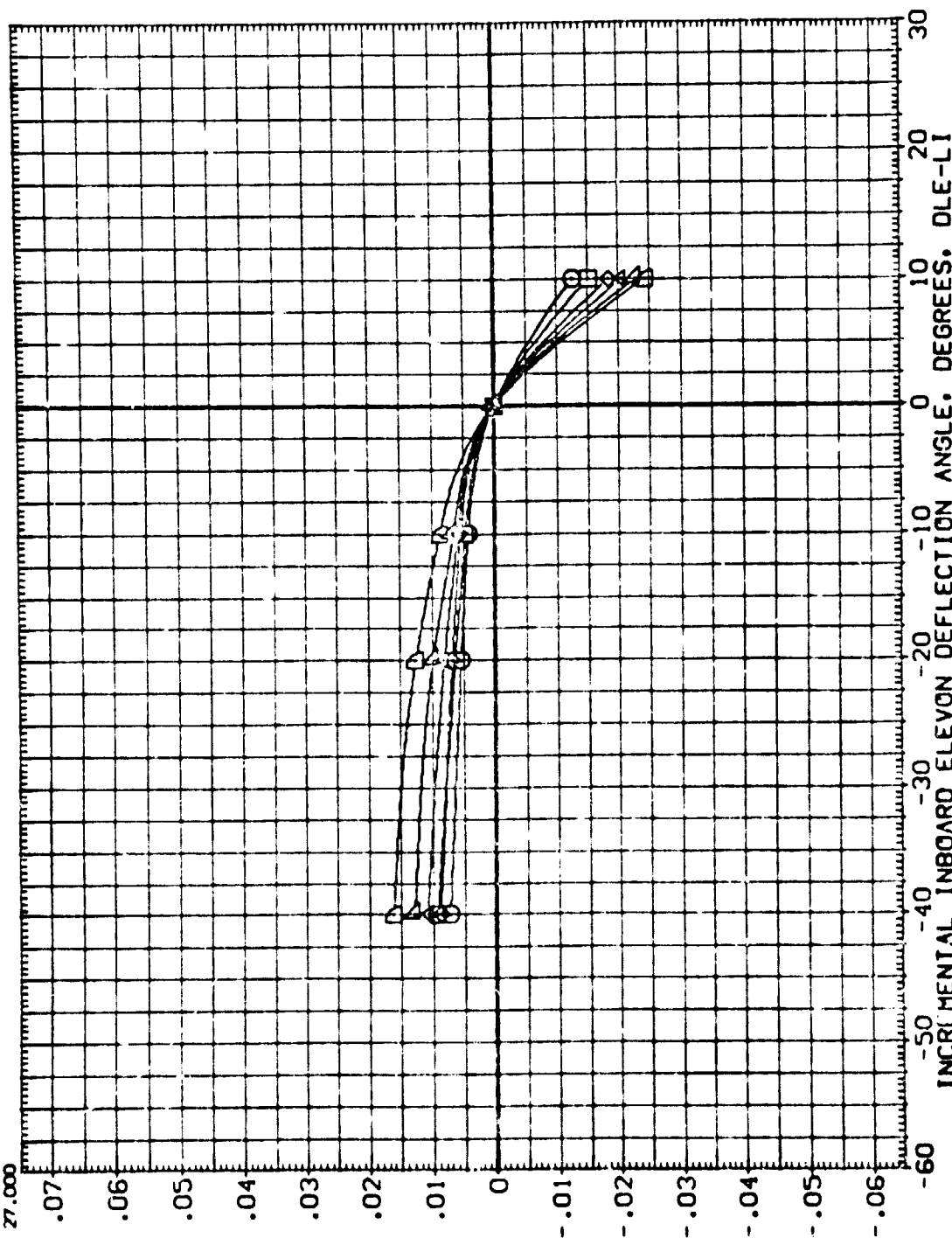


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

QA79 B26 C9 E43 F8 M16 N28 R5 V8 W116

2690.0000	50.FT.
474.2100	IN.
936.6800	IN.
1076.6800	IN.X0
.0000	IN.Y0
375.0000	IN.Z0
.0150	

DATASET	OLE-L1	SPEF
DTW330	-20,000	LREF
DTW001	.000	BREF
		Y1P
		YMRP
		ZMRP
		SCALE

DATASET	DATA SOURCE
DLF-L1	
DIW027	-40.000
DIW029	-10.000
DIW028	10.000

PARAMETRIC VALUES	
BETA	8.000
RUDDER	55.000
	3.530

ALPHA	MACH
29.000	SPOBRK
31.000	RVL
33.000	
35.000	
37.000	

57801

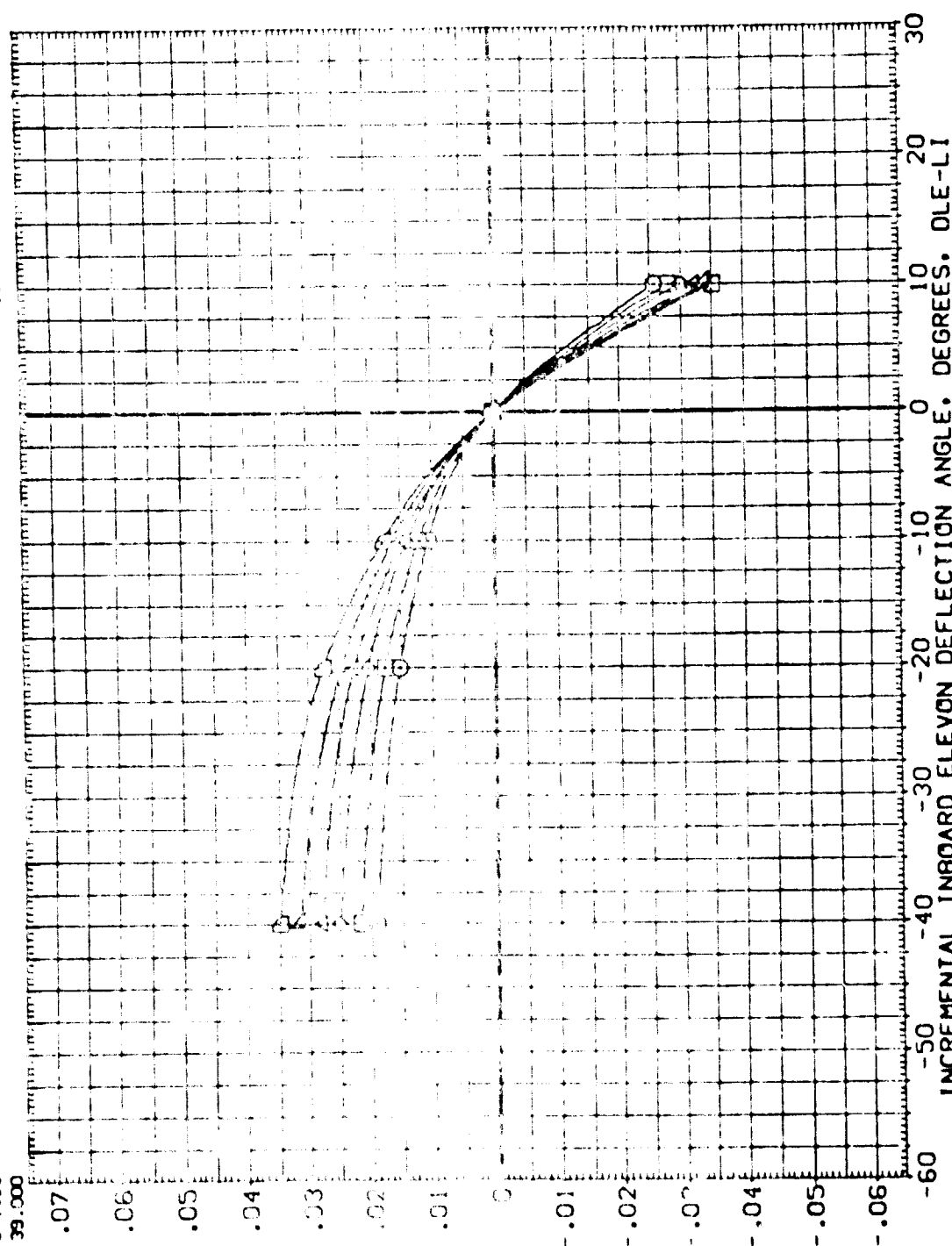


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
41.000	8.000	BETA	DLE-L1	SREF 2690.0000 SO.FT. IN.
43.000	55.000	RUDDER	DTW027	UREF 474.8100 IN.
45.000	3.530		DTW028	UREF 936.6800 IN. X0
			DTW029	YREF 1076.6800 IN. Y0
			DTW030	ZREF 575.0000 IN. Z0
			DTW031	SCALE .0150

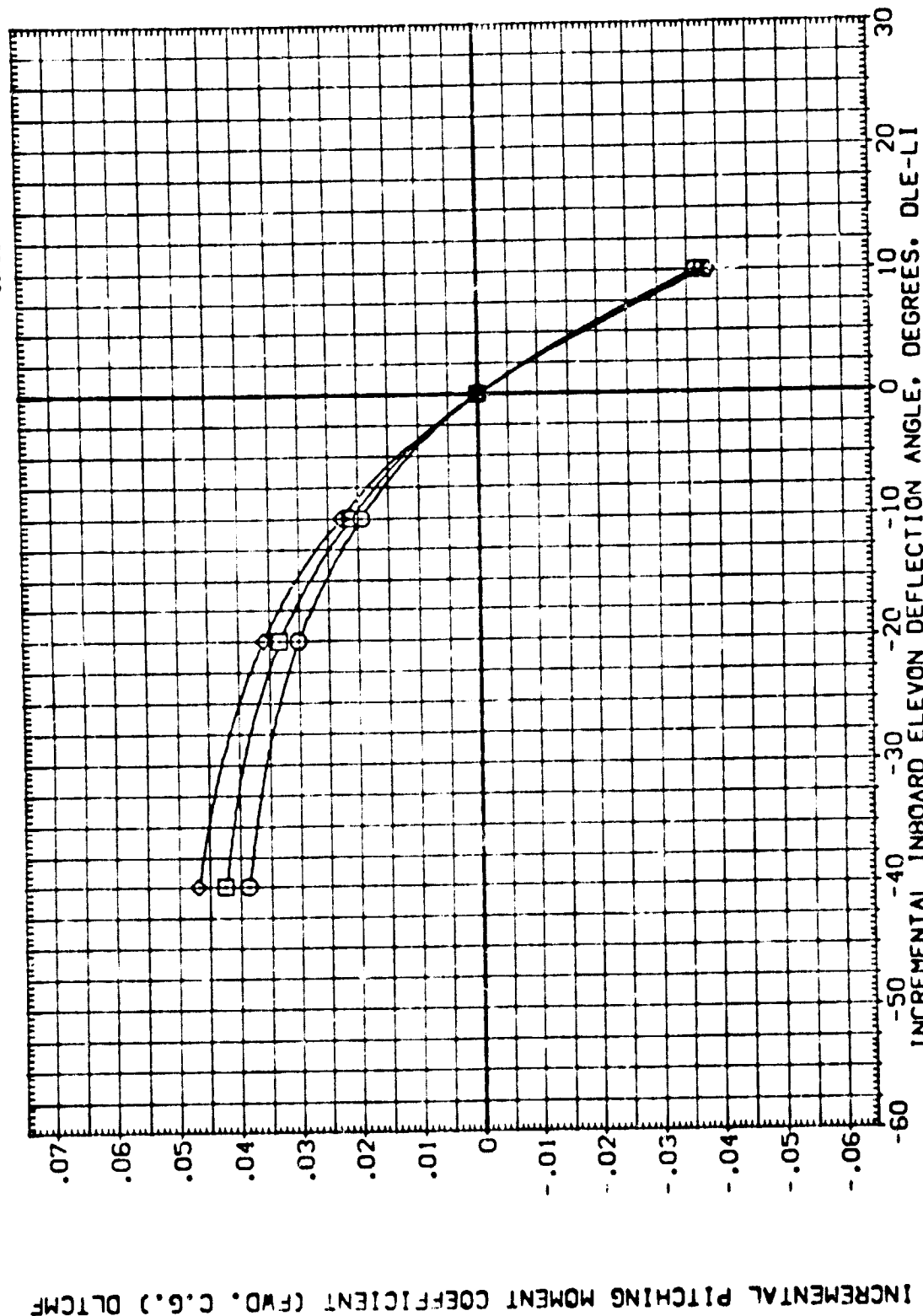


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

0A79 825 C9 E43 F8 116 N28 R5 V8 W116 (0TW027)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLE-LI	SREF	REFERENCE INFORMATION
○	17.000	8.000	HE / A	.000	0TW027	-20.000	474.8100	2650.0000
□	19.000	55.000	RUDDER	.000	0TW028	-10.000	936.6800	474.8100
◇	21.000	3.530		.000	0TW029	-10.000	1076.6800	936.6800
△	23.000			.000	0TW028	-10.000	375.0000	1076.6800
▽	25.000			.000	0TW028	-10.000	375.0000	375.0000
◇	27.000			.000	0TW028	-10.000	375.0000	375.0000
							SCALE	.0150

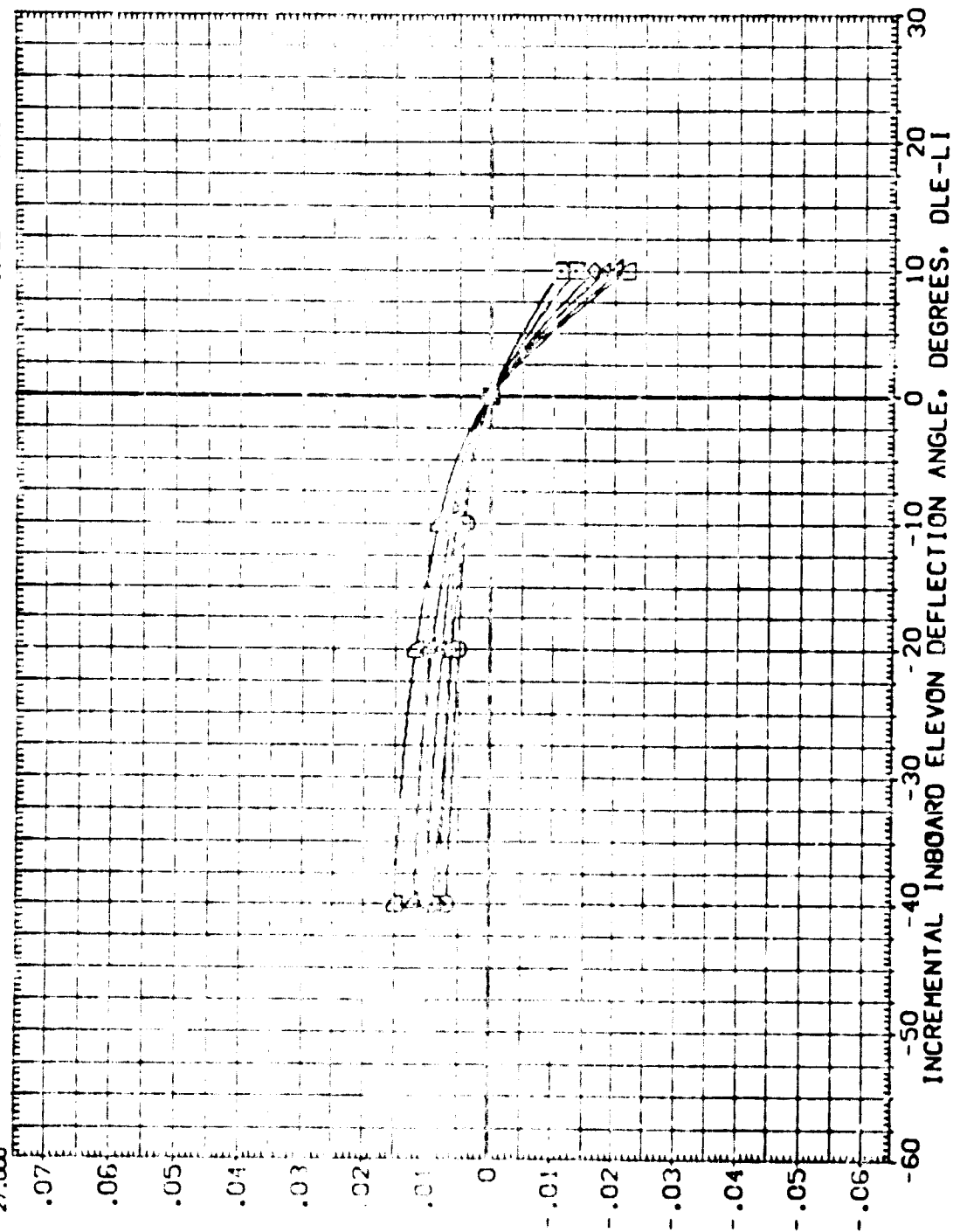


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION		
ALPHA	MACH	.000	DATASET	DLE-LI	REF	50.FT.
29.000	8.000	.000	DTW027	-20.000	474.8100	IN.
31.000	55.000	.000	DTW028	-10.000	936.6800	IN.
33.000	3.530	.000	DTW029	10.000	1076.6800	IN.
35.000					375.0000	IN.
37.000					375.0000	IN.
					SCALE	.0150

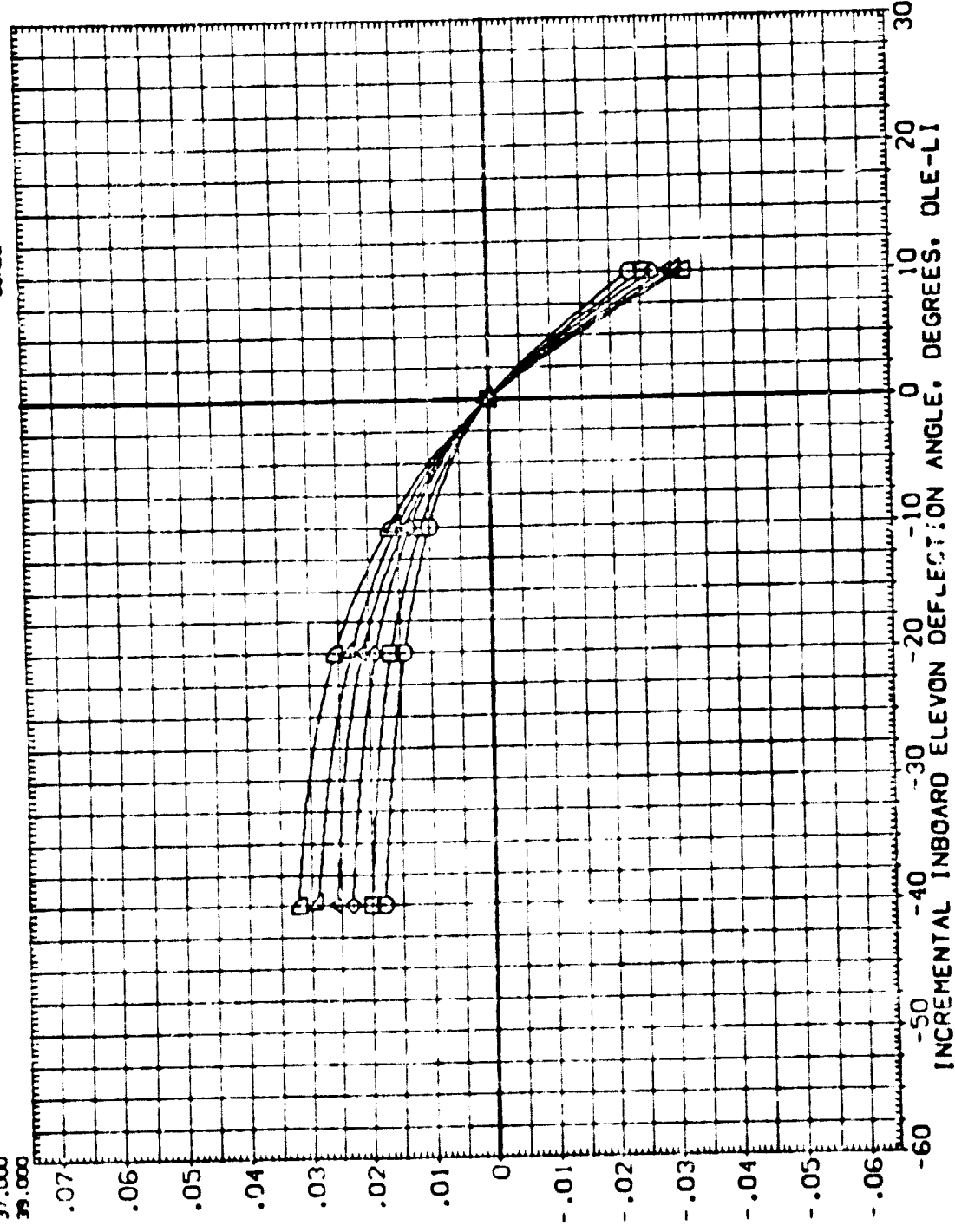


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

(DTW027)

5-10-68

ALPHA  
41.000  
43.000  
45.000

PARAMETER  
8,000  
55,000  
3,530

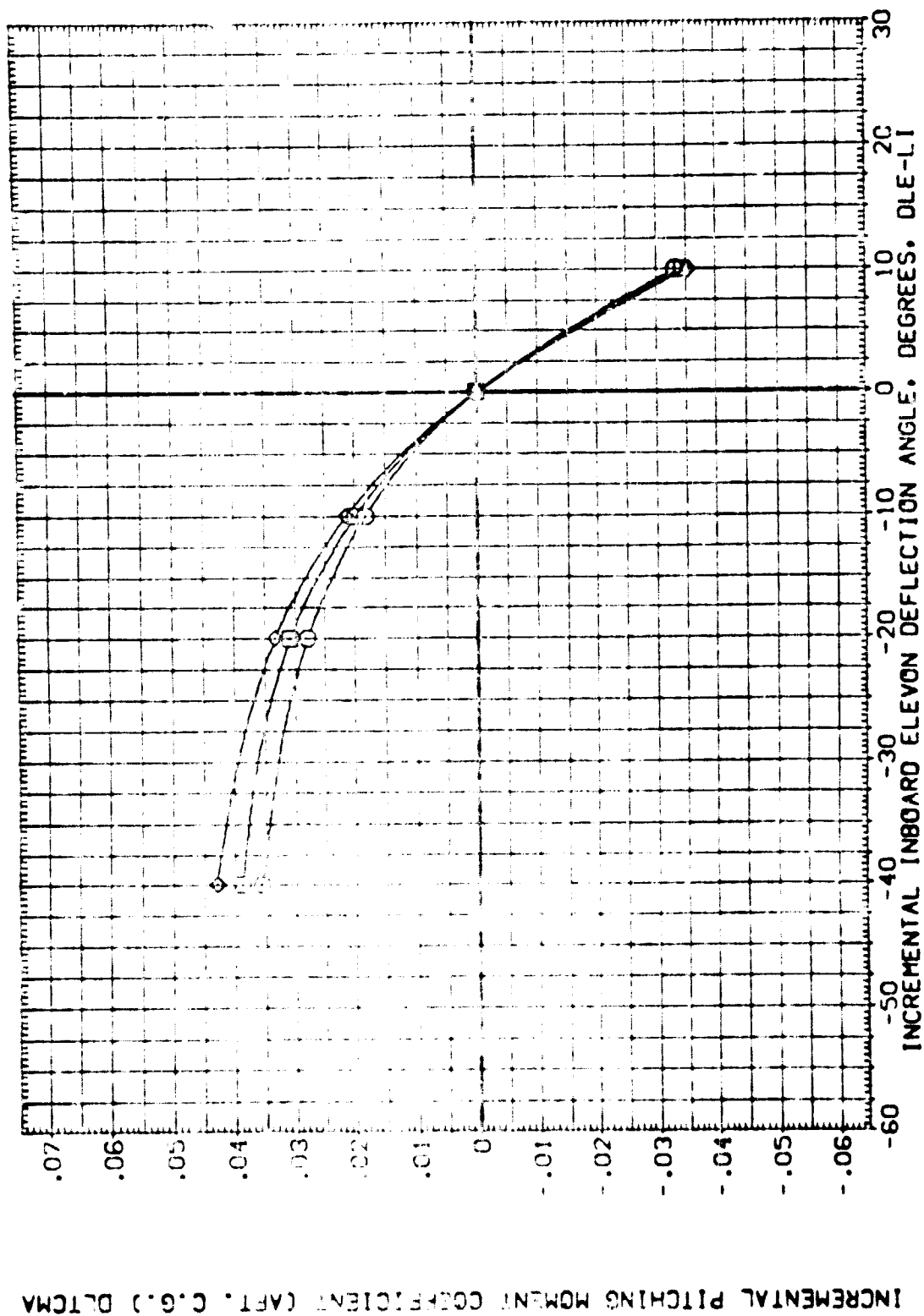
VALUES  
BETA  
RUDDER

DATA SOURCE: 1970-1971  
40,000  
10,000  
10,000

1000A1C  
030A1C  
135Y1WC

00  
 SPDF  
 LPDF  
 BPDF  
 20.9  
 1000

REFERENCE INFORMATION	
2650.0000	50.FT.
474.8100	N.
936.6800	N.
1076.6300	N.X8
0300	N.70
375.0000	N.70
.0150	



**FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVEN DEFLECTIONS**

0A79 B26 C3 E43 F8 M16 N28 R5 V8 W116 (DTW027)

ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
17.000	HACH	.000	2690.0000
19.000	SPOERK	.000	474.8100
21.000	RVAL	.000	936.6800
23.000		.000	1076.0000
25.000		.000	375.0000
27.000		.000	SCALE
			.0150

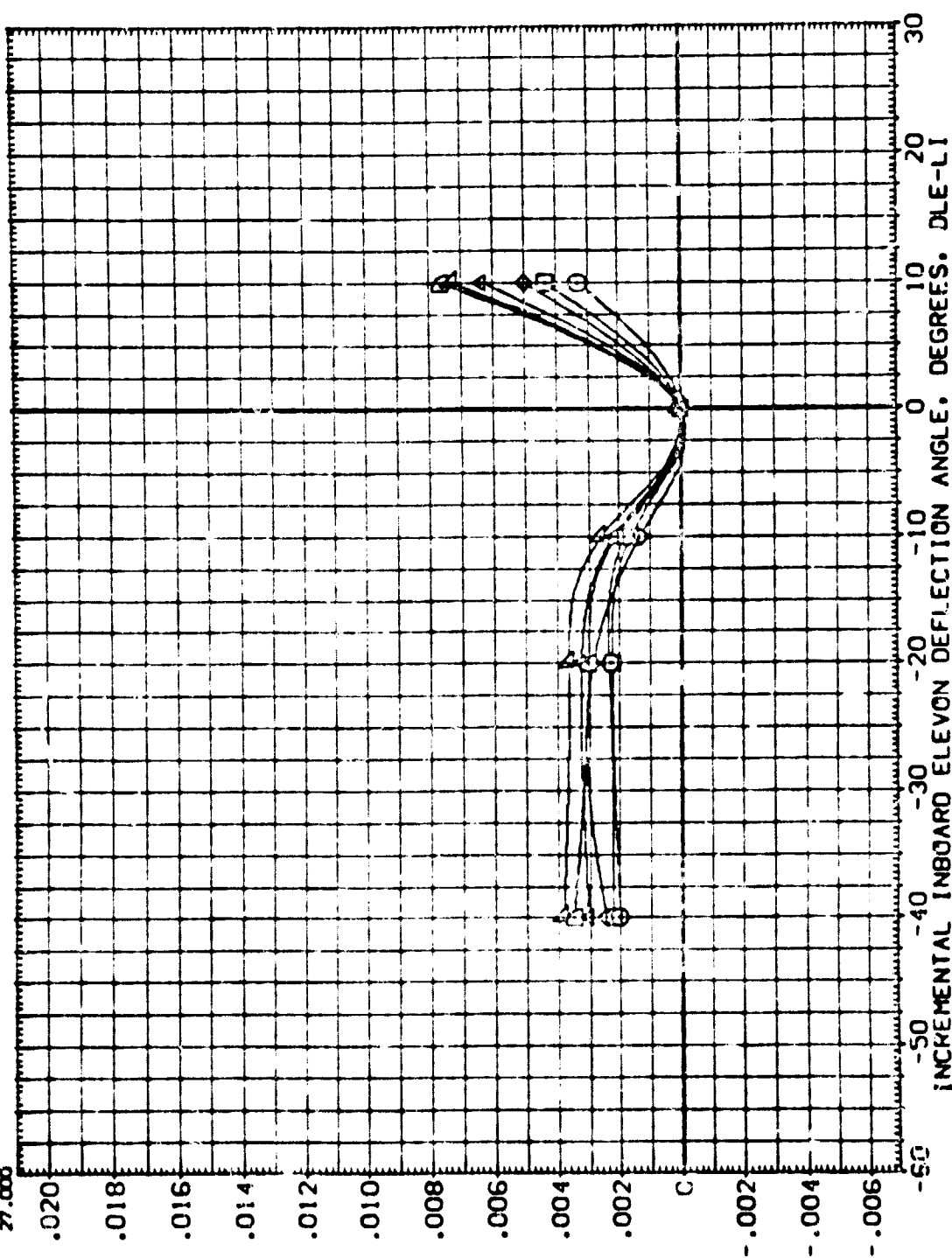


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLE-LI	DLE-LI	REFERENCE INFORMATION
29.000	8.000	BETA	.000	.000	-20.000	SREF	2690.0000 SQ.FT.
31.000	55.000	RUDER	.000	.000	.000	LREF	474.8100 IN.
33.000	3.530		.000	.000	.000	BREF	936.6800 IN.
35.000			.000	.000	.000	XREF	1076.6800 IN.
37.000			.000	.000	.000	YREF	375.0000 IN.
39.000			.000	.000	.000	ZREF	375.0000 IN.
			.000	.000	.000	SCALE	.0150

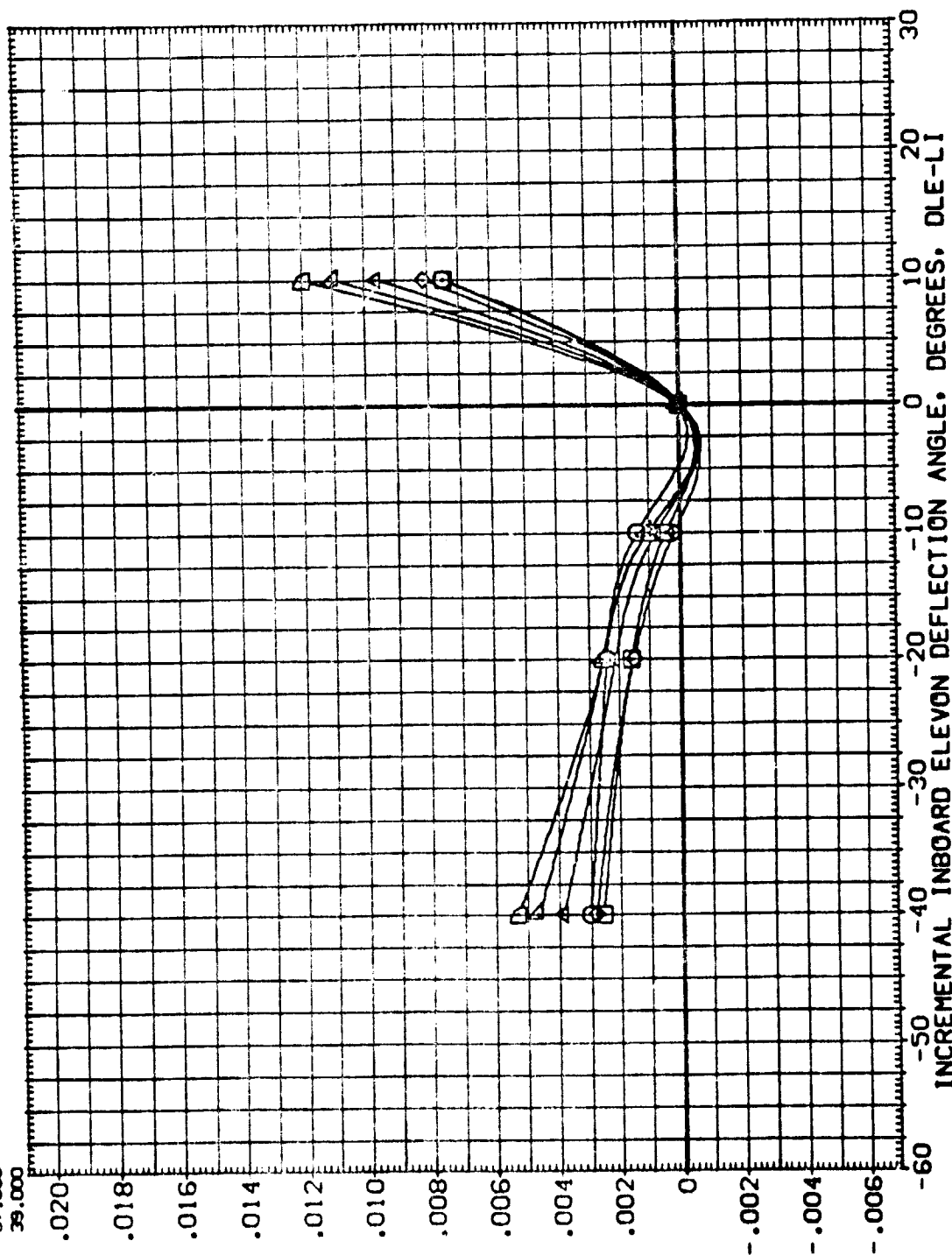
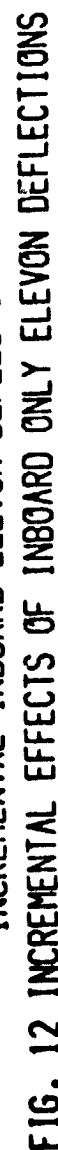


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

**SYMBOLS**



(DTW027)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
SQ.FT. 2630.0000  
IN. 474.8100  
IN. 936.8600  
IN. 1076.8600  
IN. 375.0000  
IN. 375.0000  
SCALE .0150

DATA SOURCE  
DLE-L1  
DATASET  
DTW030  
DTW001

PARAMETRIC VALUES  
DLE-L1  
DATASET  
DTW027  
DTW028  
DTW028

DATA SOURCE  
DLE-L1  
DATASET  
DTW030  
DTW001

PARAMETRIC VALUES  
DLE-L1  
DATASET  
DTW027  
DTW028  
DTW028

PARAMETRIC VALUES  
DLE-L1  
DATASET  
DTW027  
DTW028  
DTW028

PARAMETRIC VALUES  
DLE-L1  
DATASET  
DTW027  
DTW028  
DTW028

PARAMETRIC VALUES  
DLE-L1  
DATASET  
DTW027  
DTW028  
DTW028

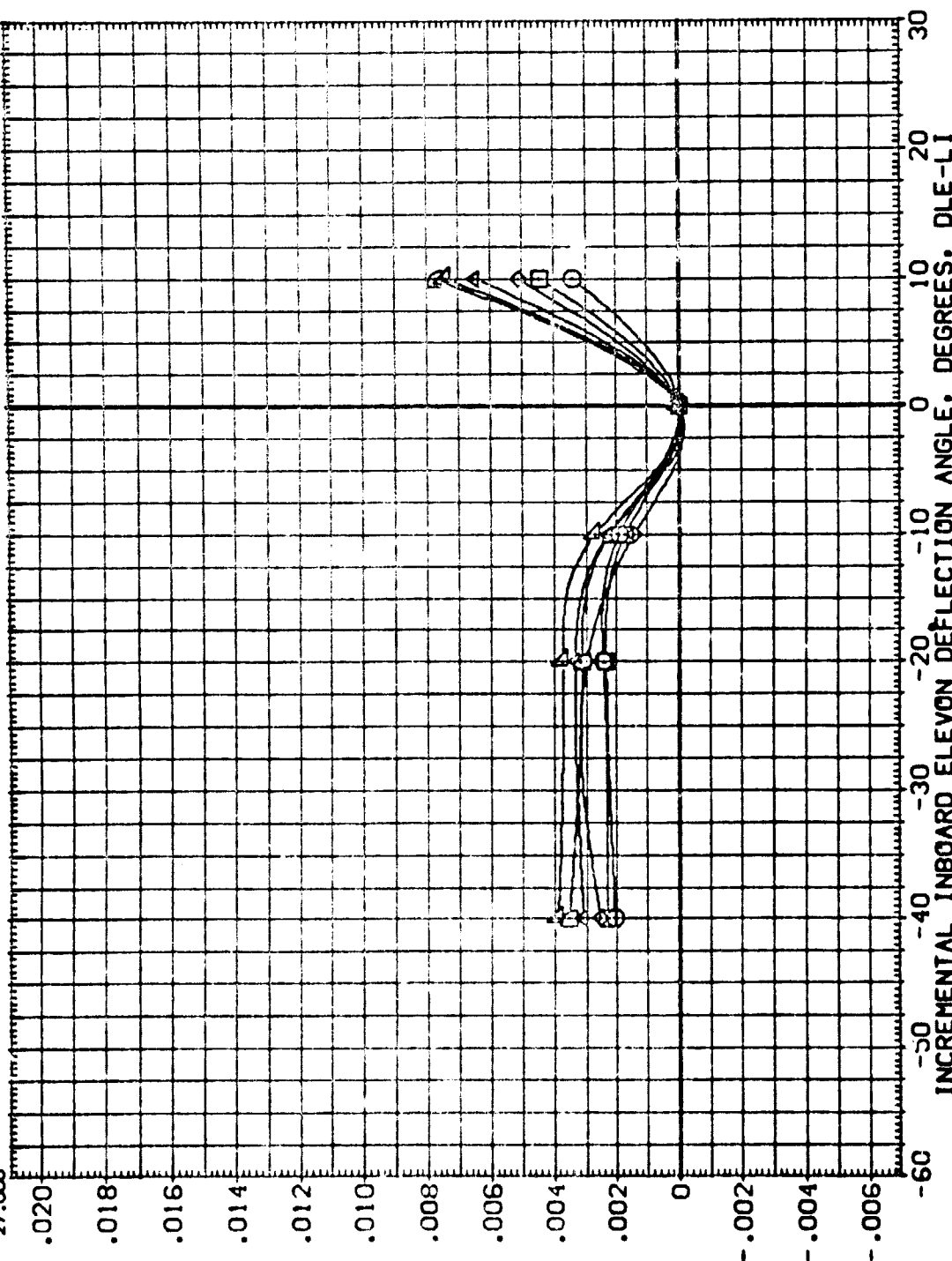


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

ALPHA	MACH	PARAMETRIC VALUES	.000 DATASET	DATA SOURCE	DATASET	DLE-LI	SREF	REFERENCE INFORMATION
29.000	8.000	BETA	.000	DLE-LI	DTW030	-20.000	2690.0000	50.FT.
31.000	55.000	RUDDER	.000	DTW027	DTW030	.000	474.8100	IN.
33.000	3.530			DTW028	DTW001		936.6800	IN. X8
35.000							1076.6800	IN. Y8
37.000							375.0000	IN. Z8
39.000							.0150	SCALE

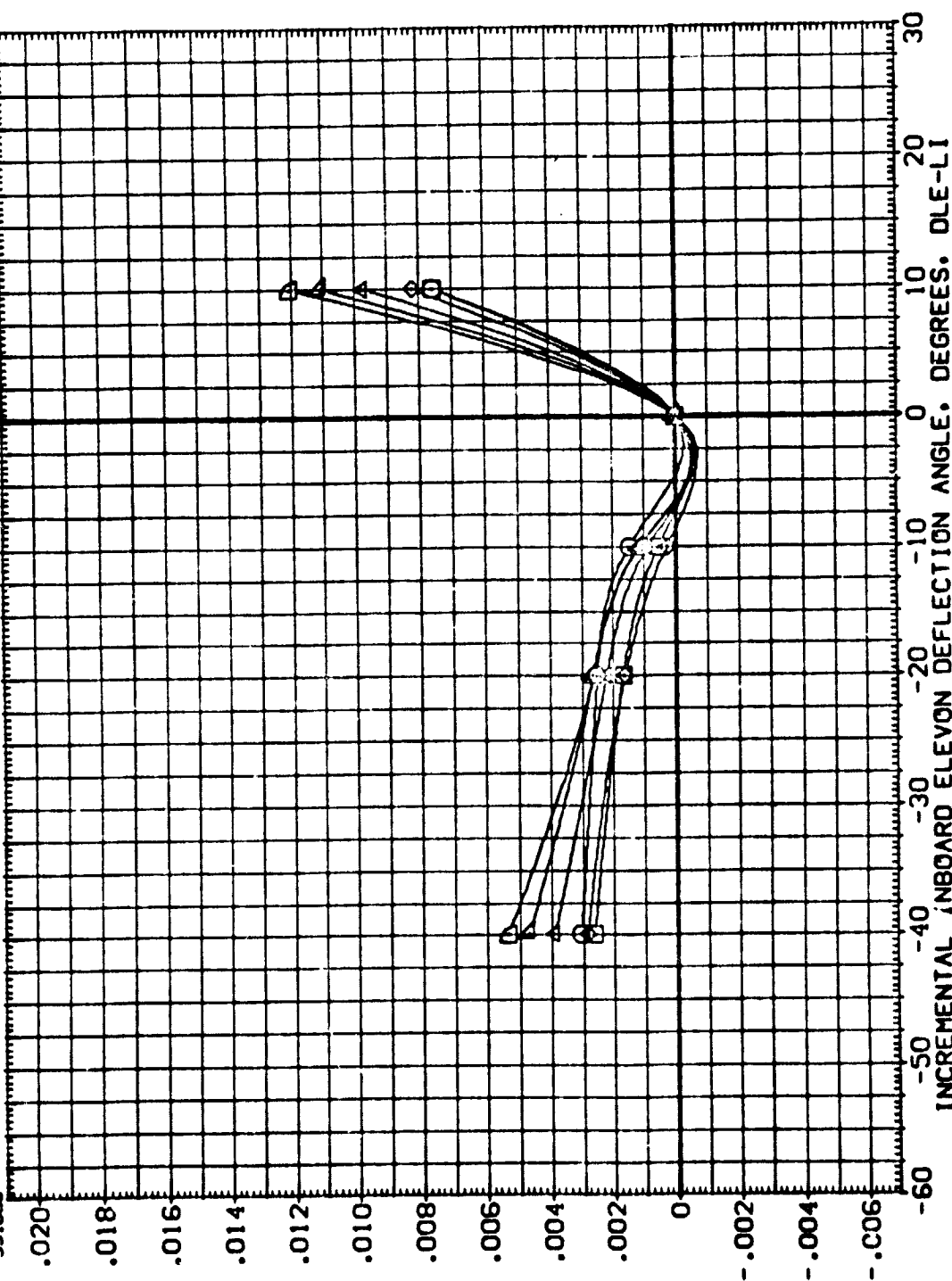


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

(DTW027)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

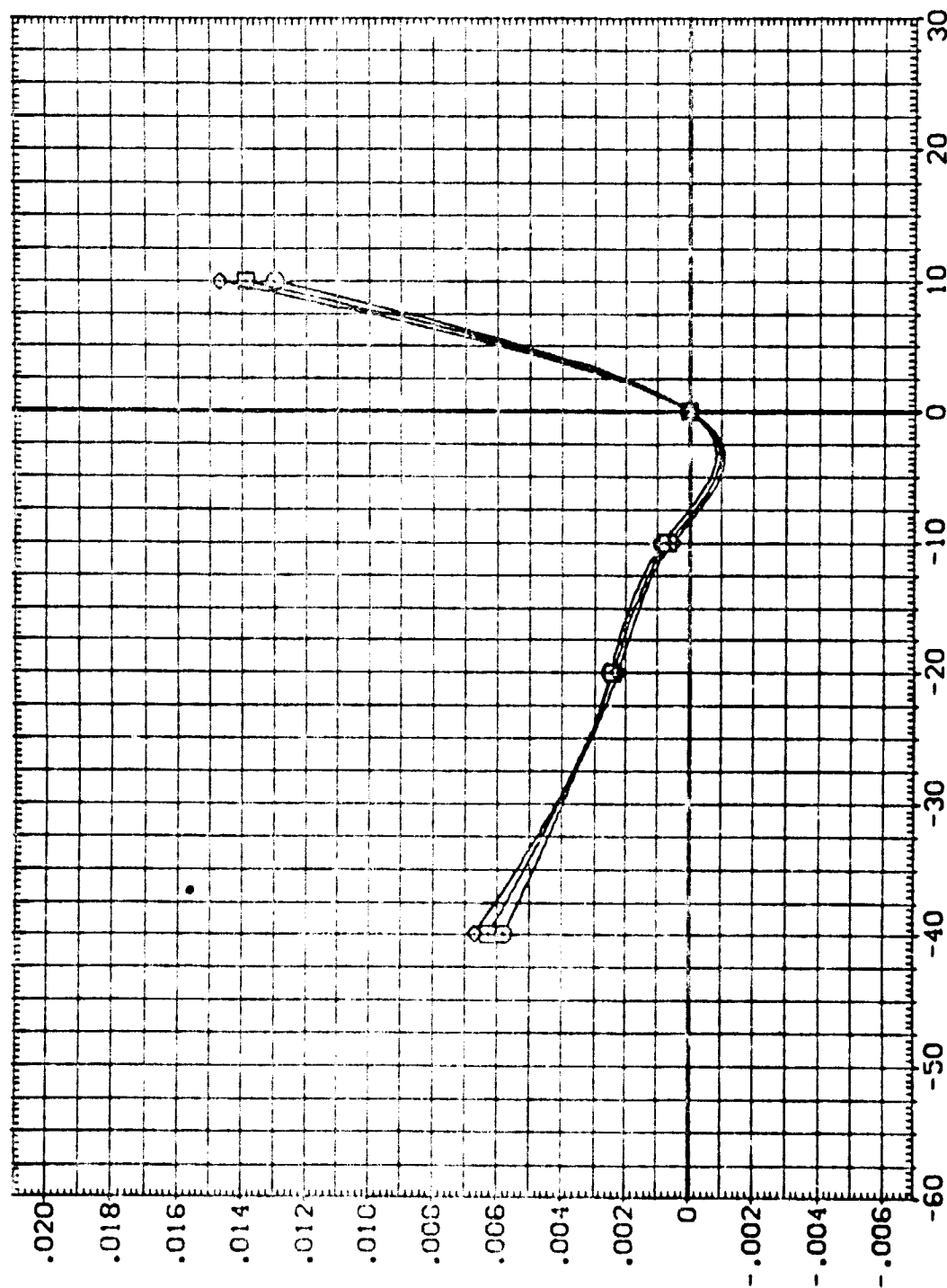
SYMBOL ALPHA MACH SPDRK RV/L  
 O 41.000  
 □ 43.000  
 ◇ 45.000

PARAMETRIC VALUES  
 BETA 8.000  
 RUDDER 55.000  
 3.530

DATA SOURCE  
 DLE-L1  
 -40.000  
 -10.000  
 10.000

DATASET  
 DTW030  
 DTW001

REFERENCE INFORMATION  
 SREF 2690.0000  
 LREF 474.8100  
 BREF 936.6800  
 XREF 1076.6000  
 YREF .0000  
 ZREF 375.0000  
 SCALE .0150



INCREMENTAL FOREBODY AXIAL FORCE COEFFICIENT, DLTCAF

FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLE-LI	REFERENCE INFORMATION
○	17.000	8.000	BETA	.000	DTW027	-20.000	2650.0000 SO.FT.
□	19.000	55.000	RUDDER	.000	DTW028	-10.000	474.8100 IN.
◇	21.000	3.530					936.6800 IN.
△	23.000						1076.6800 IN.
▽	25.000						375.0000 IN.
▽	27.000						375.0000 IN.
							SCALE .0150

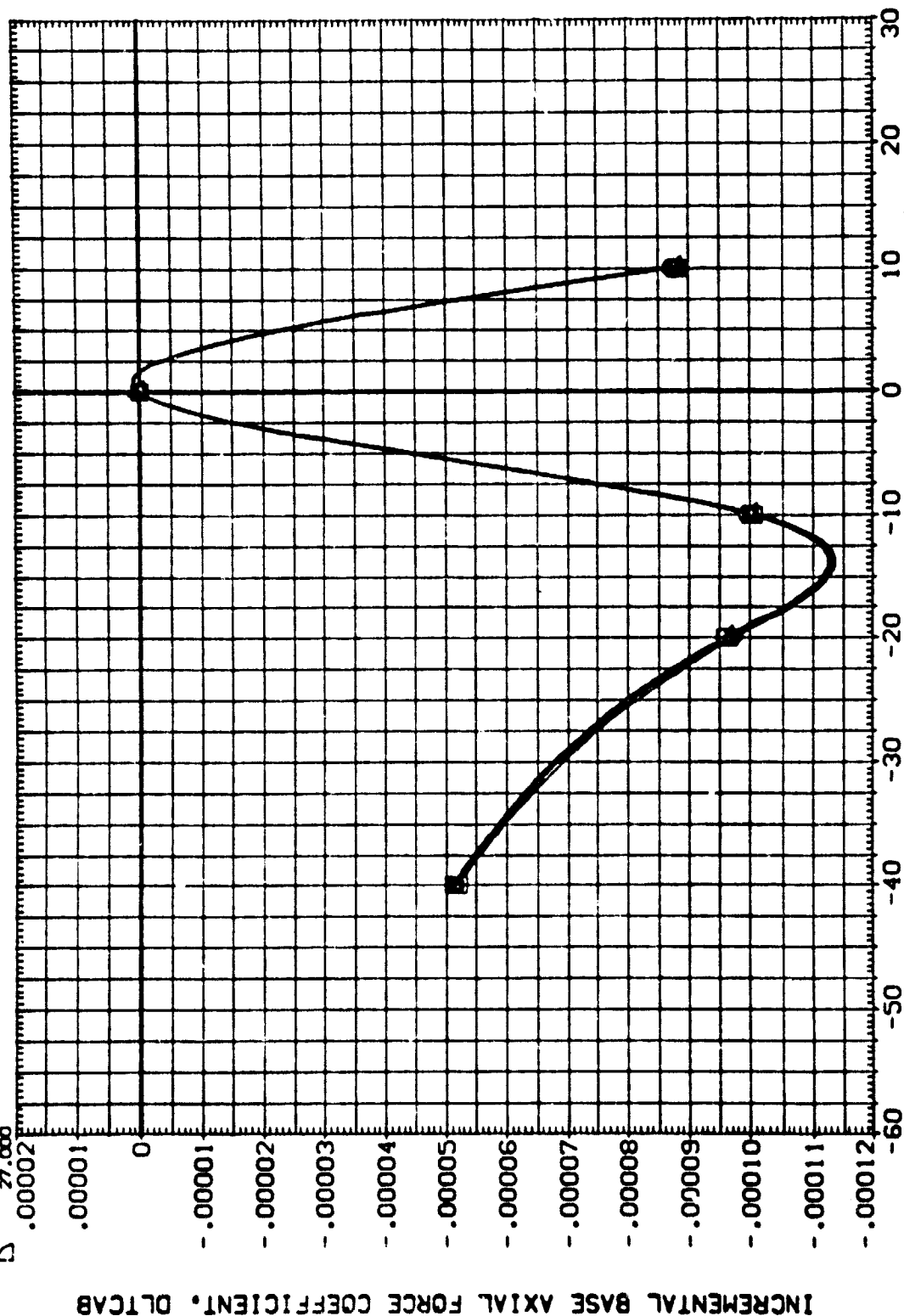


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

(DTW027)

REFERENCE INFORMATION	50.FT.
2690 0000	IN.
474 8100	IN.
936 6800	IN.X03
1075.6800	IN.Y03
.0000	IN.Z0
375.0000	
.0150	

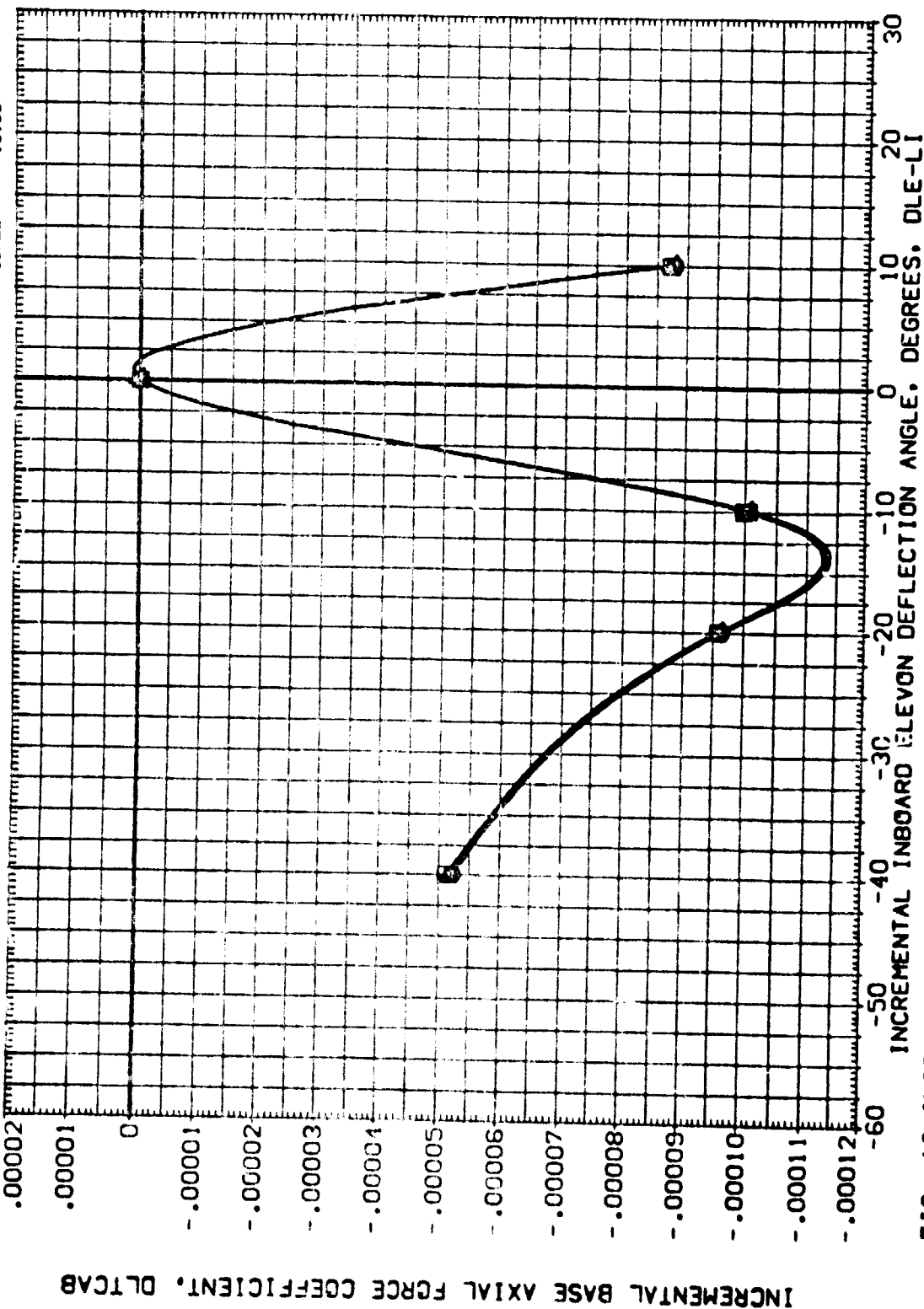


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVEN DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLE-L1	REFERENCE INFORMATION
○	41.000		8.000	BETA	.000	DLE-L1	SREF 2690.0000
□	43.000	SP08BK	55.000	RUDDER	.000	DTW027	LREF 474.8100
◇	45.000	RAVL	3.530		.000	DTW028	SREF 936.6800
					.000	DTW001	XREF 1076.6800
					.000	DTW028	YREF 375.0000
					.000	DTW028	ZREF 375.0000
					.000	DTW028	SCALE .0150

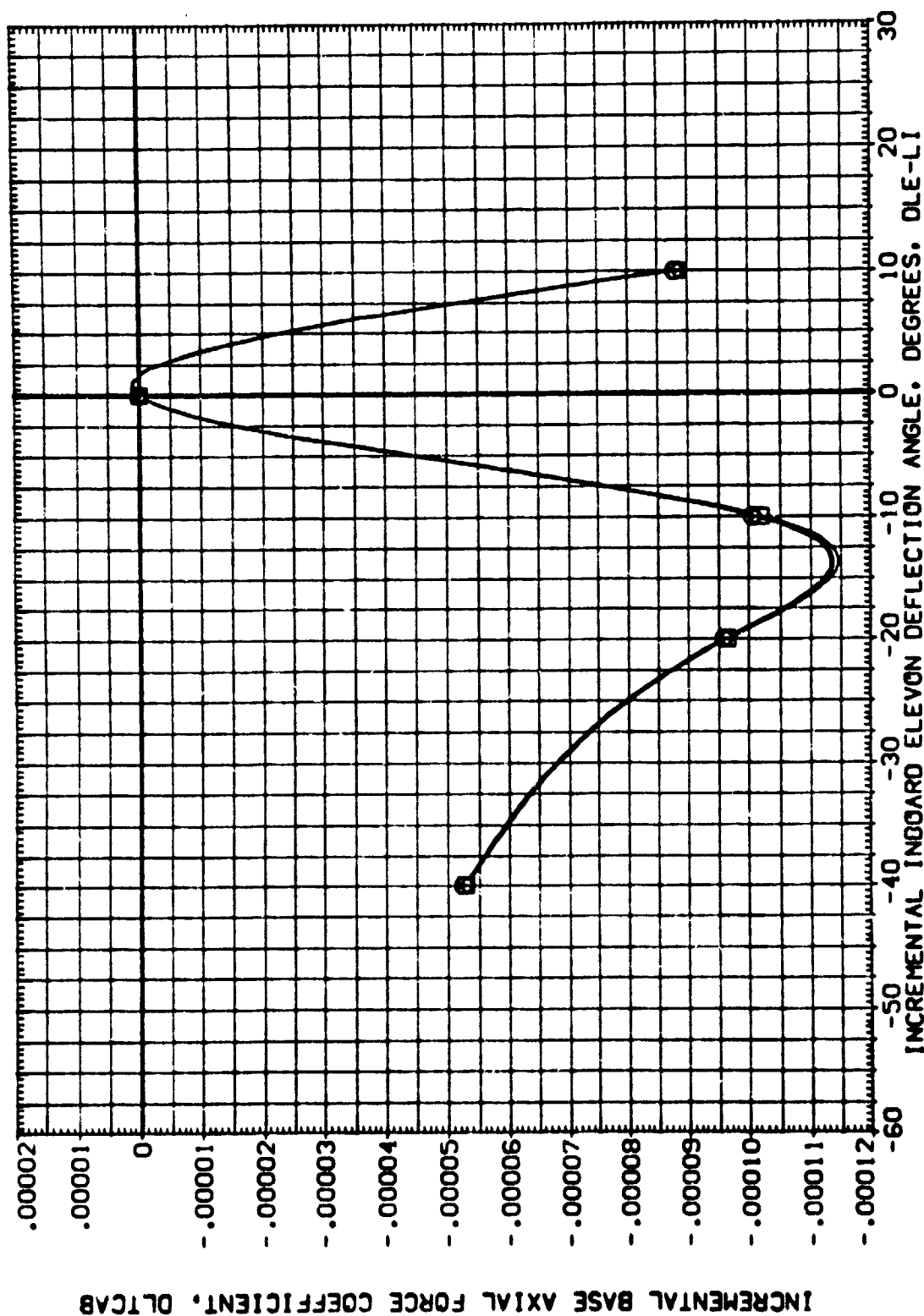


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

SYMBOL  
 □ ◇ △ ▽ ▹

ALPHA  
 17.000  
 19.000  
 21.000  
 23.000  
 25.000  
 27.000

MACH  
 8.000  
 56.000  
 3.530

PARAMETRIC VALUES  
 BETA  
 RUDDER

.000 DATASET  
 .000 DTW027  
 .000 DTW029  
 .000 DTW028

DATA SOURCE  
 QLE-LI  
 -40.000  
 -10.000  
 10.000

DATASET  
 DTW030  
 DTW001

REFERENCE INFORMATION  
 SQ.FT.  
 2690.0000  
 474.8100  
 906.6800  
 1076.6800  
 IN.  
 XREF  
 YH8P  
 ZH8P  
 375.0000  
 .0150  
 SCALE

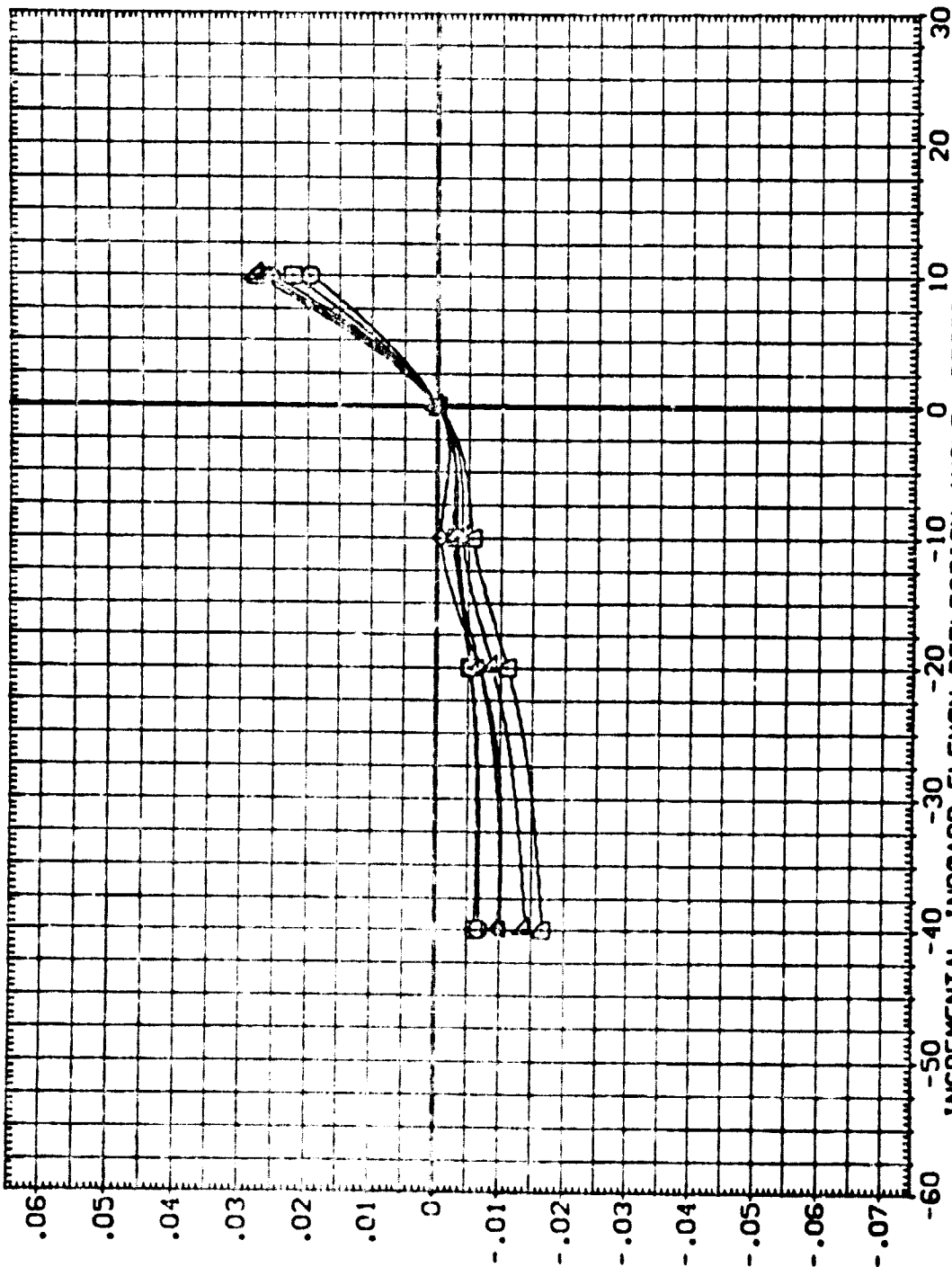


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	.000	DATASET	DATA SOURCE	DLE-LI	DATASET	DLE-LI	REF	2690.0000	50.FT.
□	29.000	8.000	BETA	.000	DTW027	DLE-LI	-40.000	DTW030	-20.000	LREF	474.8100	IN.
◇	31.000	9.000	RUDER	.000	DTW029	-10.000	-10.000	DTW001	.000	BREF	936.6800	IN.
△	33.000	3.530			DTW028	10.000				XREF	1076.6800	IN.
▽	35.000									YREF	.0000	IN.
◇	37.000									ZREF	375.0000	IN.
○	39.000									SCALE	.0150	IN.

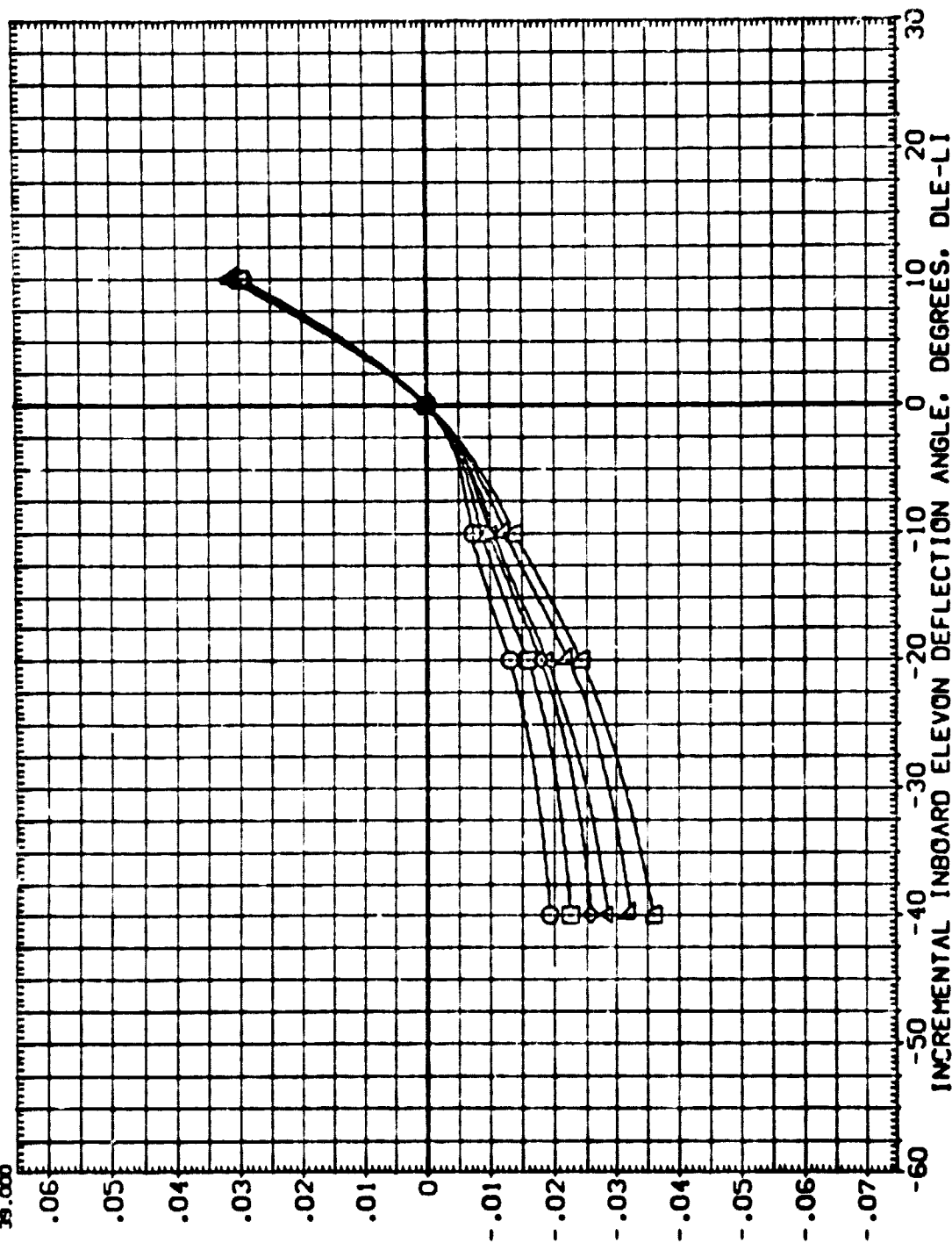


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

(DTW027)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
 2630.0000 SQ.FT.  
 474.8100 IN.  
 936.6800 IN.X0  
 1076.0000 IN.Y0  
 375.0000 IN.Z0  
 2488 SCALE  
 .0150

DATA SOURCE  
 DLE-LI  
 DATASET  
 DTW027  
 DTW028

PARAMETRIC VALUES  
 8.000 BETA  
 55.000 RUDDER  
 3.530

ALPHA  
 41.000  
 43.000  
 45.000

SYMBOL  
 ○  
 □  
 ◇

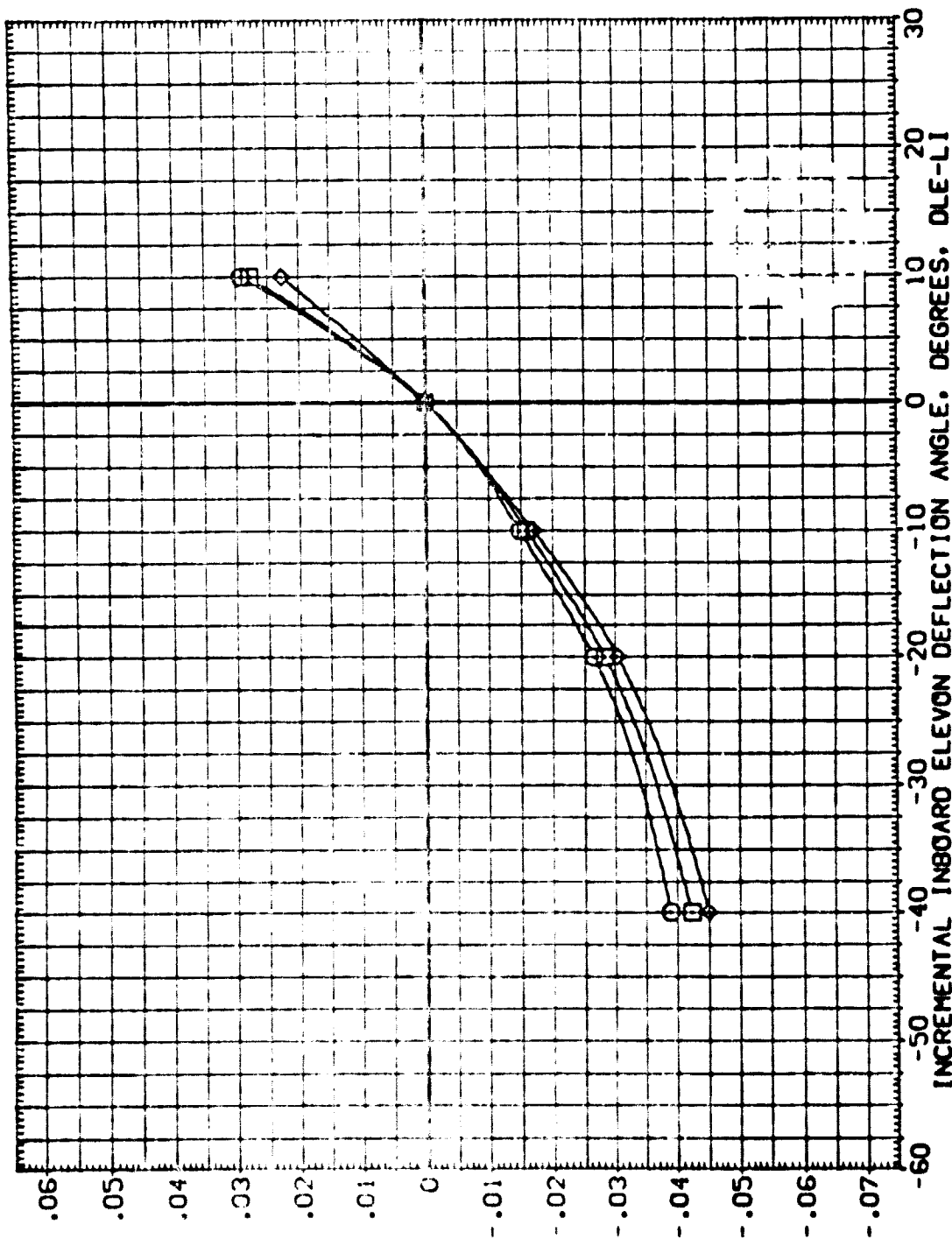


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW027)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLE-L1	SREF	REFERENCE INFORMATION
□	17.000		8.000	BETA	.000	DLE-L1	2650.0000	50.FT.
◇	19.000	SPOBRK	55.000	RUDDER	.000	DTW027	474.8100	IN.
◇	21.000	RAVL	3.530		.000	DTW029	906.6800	IN.
◇	23.000				.000	DTW028	1076.6800	IN.
◇	25.000				.000	DTW029	375.0000	IN.
◇	27.000				.000	DTW028	375.0000	IN.
						SCALE	.0150	

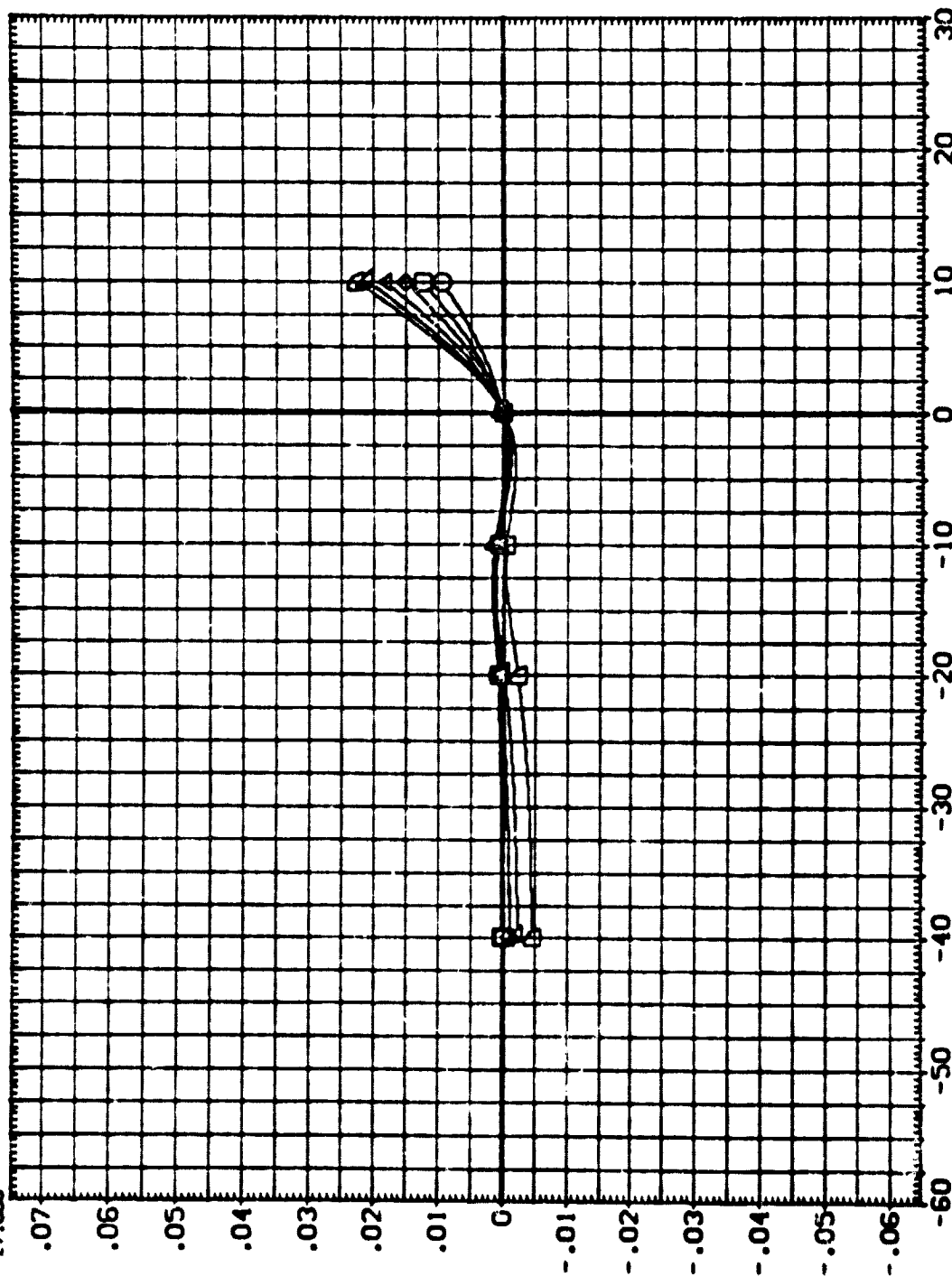


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS

(DTW027)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
□  
◇  
△  
▽  
○

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000  
39.000

MACH  
SPUBRK  
R<sup>2</sup>/L

0.000  
55.000  
3.530

PARAMETRIC VALUES  
BETA  
RUDDER

.000  
.000  
DTW027  
DTW028  
DTW029

.000  
-40.000  
-10.000  
10.000

DATA SOURCE  
DLE-LI

DLE-LI  
-20.000  
.000

SPREF  
LREF  
BREF  
XREF  
YREF  
ZREF

2690.0000  
474.8100  
536.6800  
1076.6800  
375.0000  
375.0000

SO FT.  
IN.  
IN.  
IN.  
IN.  
IN.

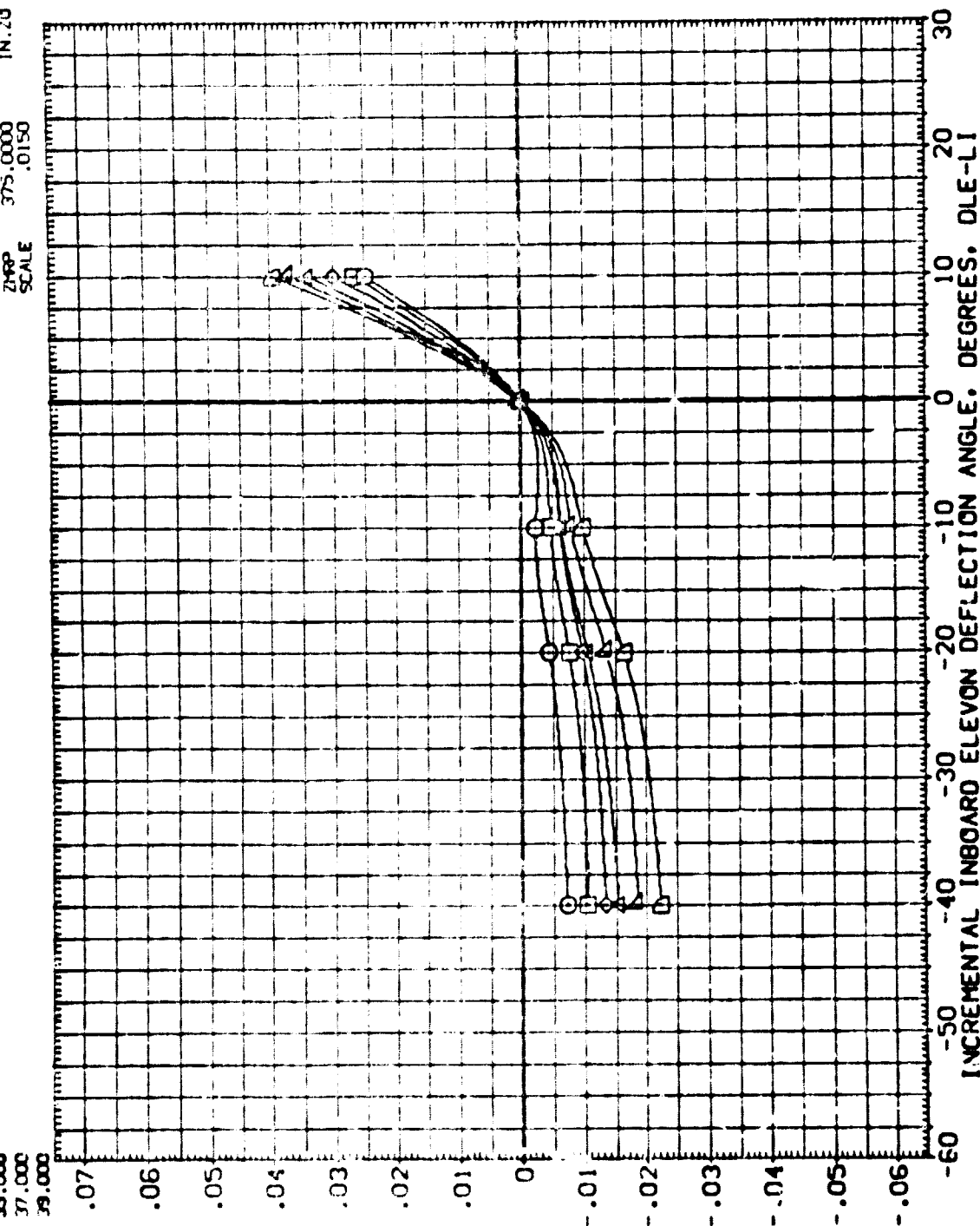


FIG. 12 INCREMENTAL EFFECTS OF INBOARD ONLY ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV038)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-20.000	.000	.000	-20.000	SREF 2630.0000 SO.FT.
(CTV034)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-10.000	.000	.000	-10.000	LREF 474.8100 IN.
(CTV001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	BREF 936.5800 IN.
(CTV033)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	10.000	.000	.000	10.000	XREF 1076.6800 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

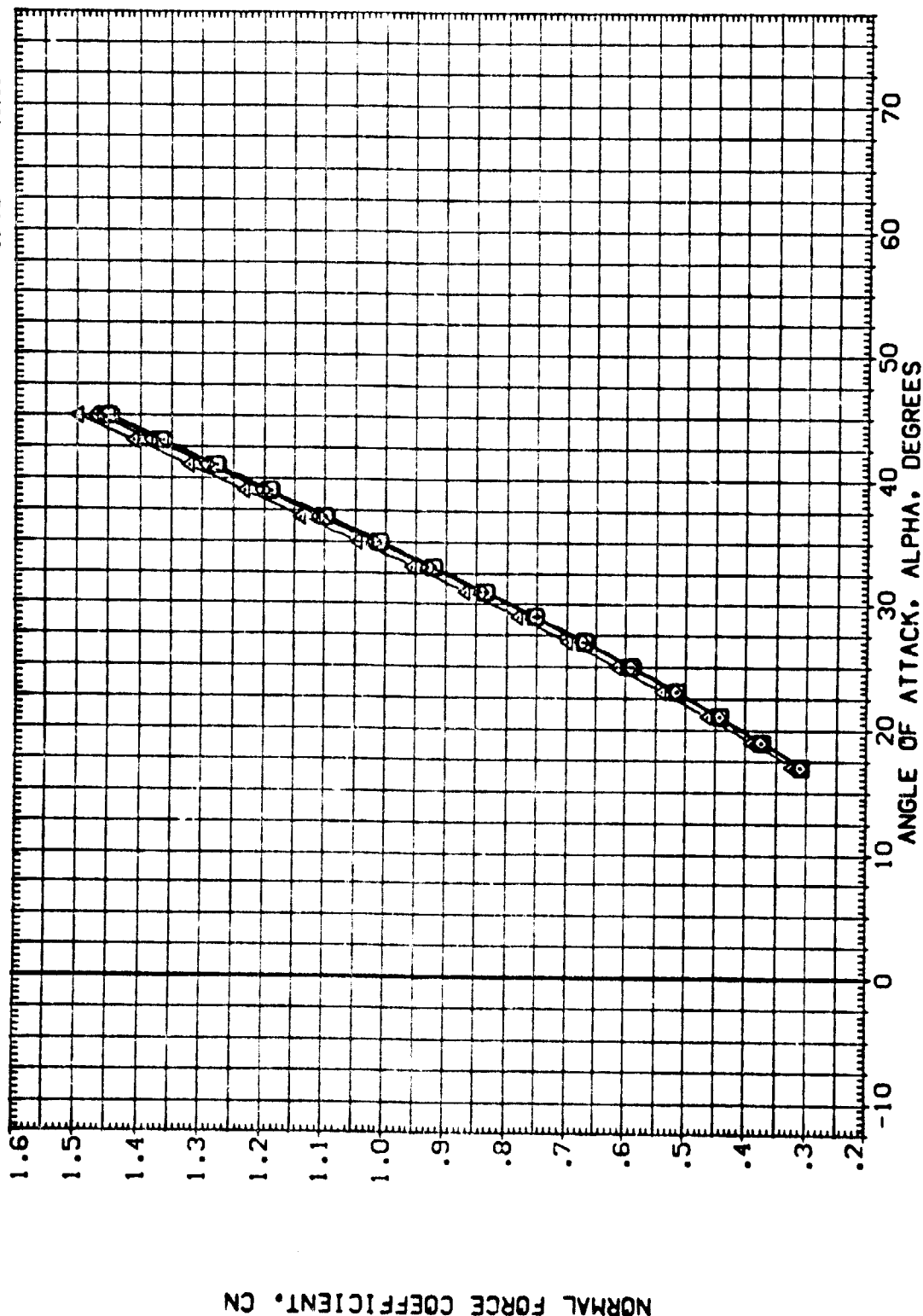


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV038)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	-20.000	.000	.000	-20.000	SREF 2690.0000 SO.FT.
(CTV034)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	-10.000	.000	.000	-10.000	LREF 474.8100 IN.
(CTV001)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	.000	.000	.000	.000	BREF 936.6800 IN.
(CTV033)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	10.000	.000	.000	10.000	XREF 1076.6800 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH(FORWARD C. G.) CLMFD

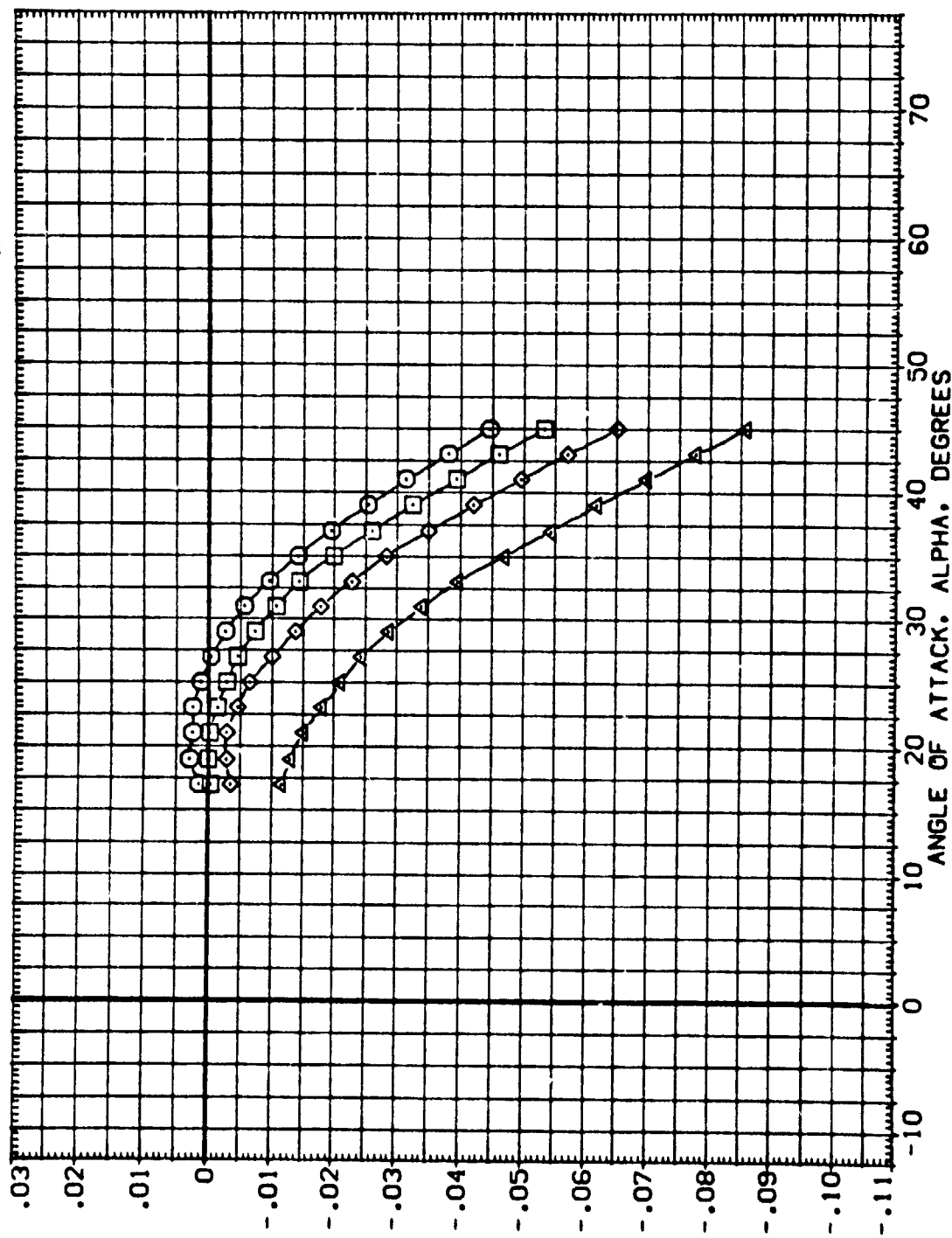


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(MACH = 8.00



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELV-L0    ELV-L1    ELV-R1    ELV-R0    REFERENCE INFORMATION

(CTW028)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-20.000	.000	.000	-20.000	SREF 2690.0000 SQ.FT.
(CTW034)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-10.000	.000	.000	-10.000	LREF 474.3100 IN.
(CTW001)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	BREF 936.6800 IN.
(CTW033)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	10.000	.000	.000	10.000	XREF 1076.6800 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH(AFT C. G.) CLMFT

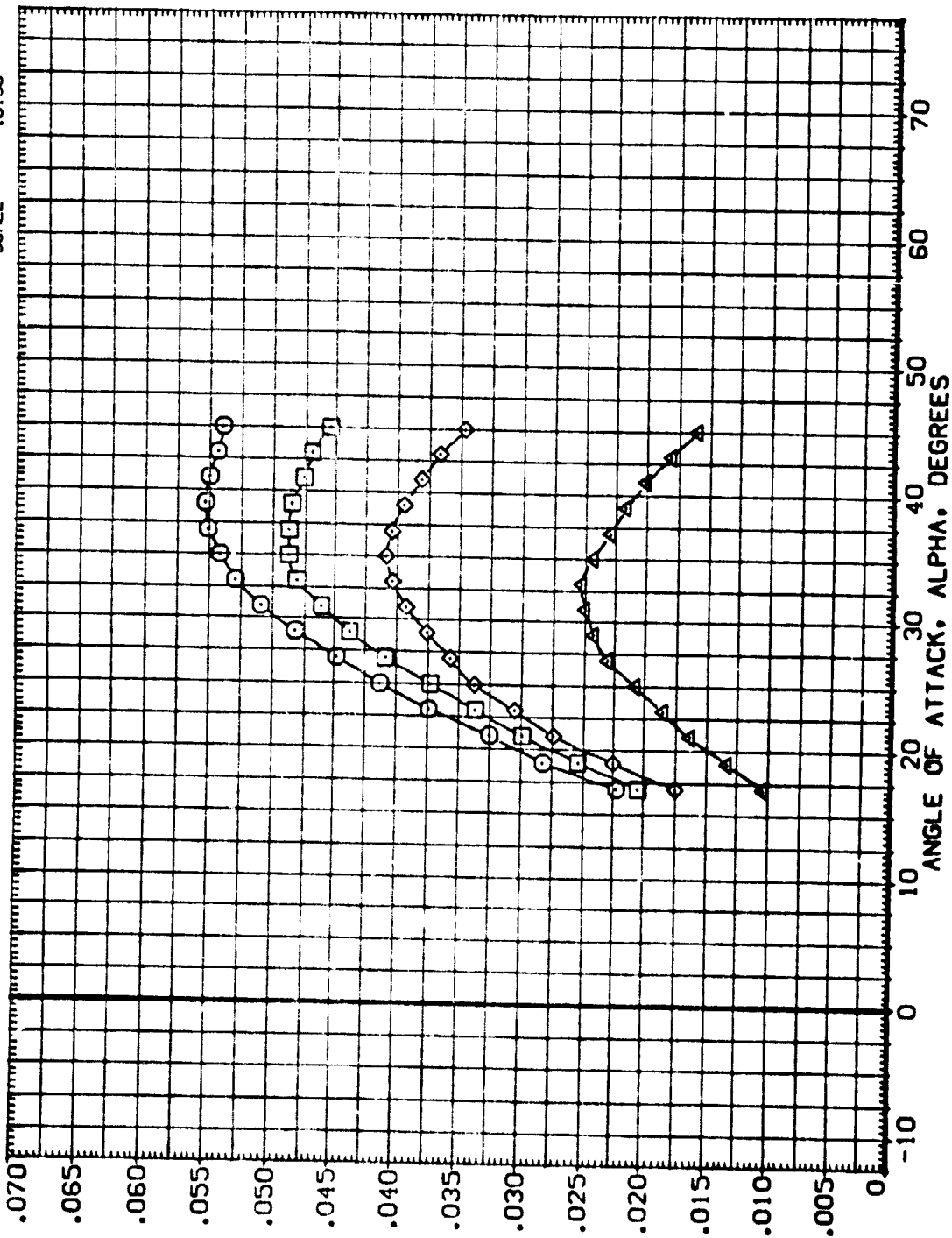
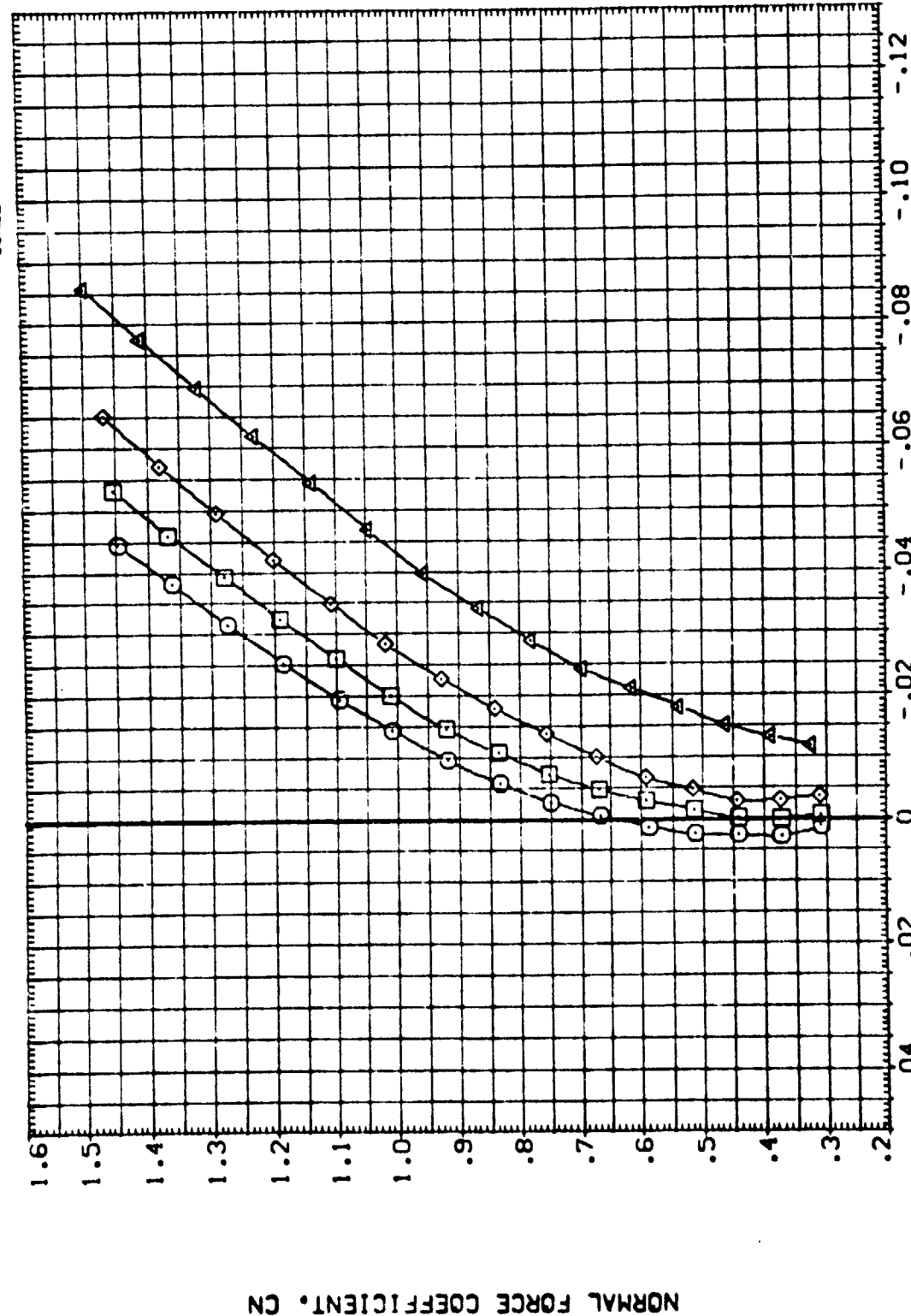


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CIV008)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-20.000	.000	.000	-20.000	SREF 2690.0000 SQ.FT.
(CIV004)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-10.000	.000	.000	-10.000	LREF 474.8100 IN.
(CIV001)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	BREF 936.6800 IN. X0
(CIV003)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	10.000	.000	.000	10.000	XREF 1076.6800 IN. Y0
						YREF 375.0000 IN. Z0
						SCALE .0150



PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C. G.) CLMFWO

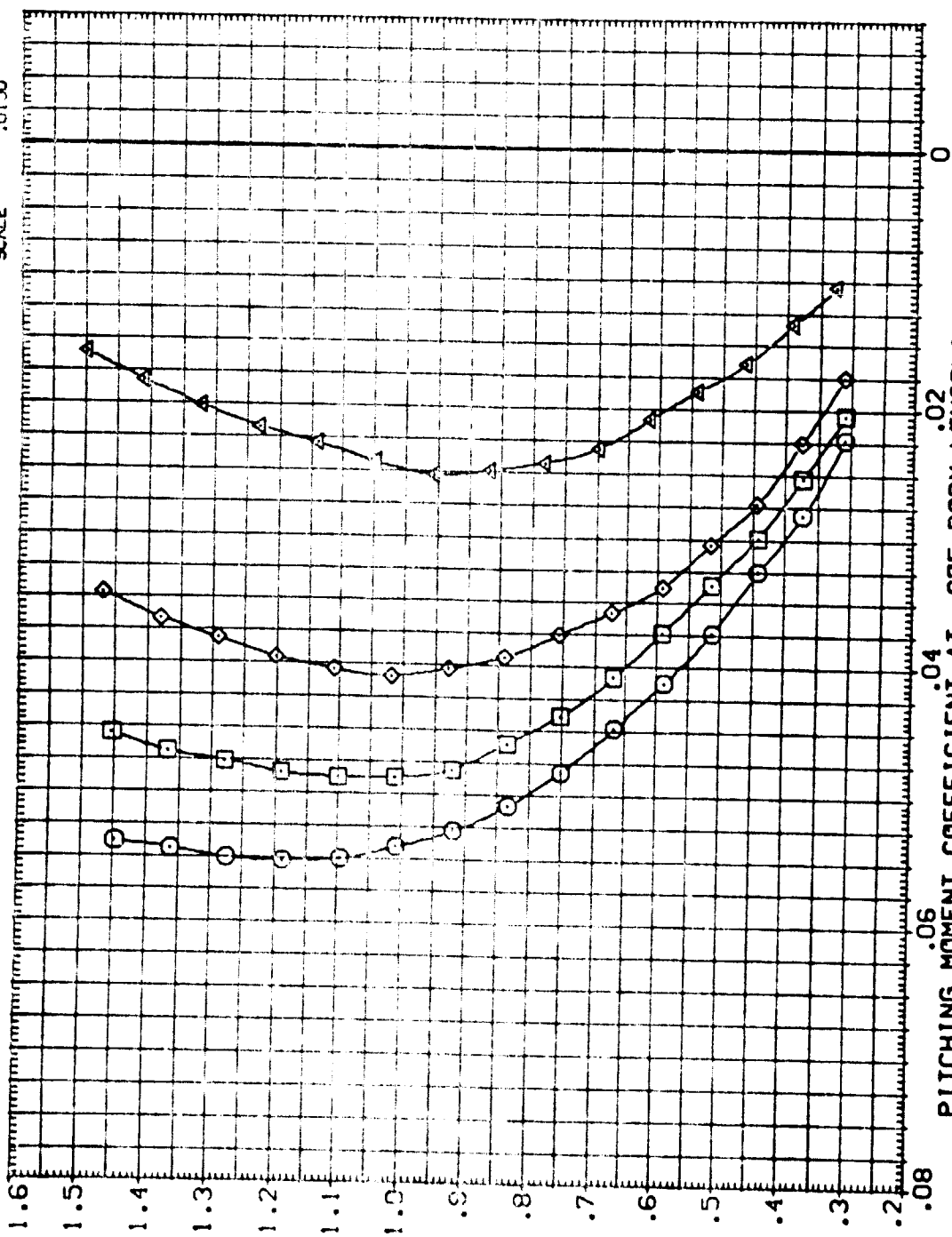
FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CTV038) CA79 826 C9 E43 F8 H16 N28 RS V8 V116  
 (CTV034) CA79 826 C9 E43 F8 H16 N28 RS V8 V116  
 (CTV001) CA79 826 C9 E43 F8 H16 N28 RS V8 V116  
 (CTV033) CA79 826 C9 E43 F8 H16 N28 RS V8 V116

ELV-L0 ELV-L1 ELV-R1 ELV-L0  
 -20.000 .000 .000 -20.000  
 -10.000 .000 .000 -10.000  
 10.000 .000 .000 10.000

REFERENCE INFORMATION  
 SREF 2690.0000 SO.FT.  
 LREF 474.0100 IN.  
 BREF 906.6400 IN.  
 XREF 1076.5600 IN.  
 YREF .0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150



PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH(AFT C. G.) CLMFT  
 FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED  
 CAJ MACH = 8.00

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF	ELV-R0	ELV-R1	ELV-L1	ELV-L0	SQ.FT.
(CTV038)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	SREF	-20.000	.000	.000	-20.000	2690.0000
(CTV034)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	LREF	-10.000	.000	.000	-10.000	474.8100
(CTV001)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	BREF	10.000	.000	.000	10.000	936.6800
(CTV033)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	XTRP	10.000	.000	.000	10.000	1076.6800
		YTRP		.0000			.0000
		ZTRP		.0000			.0000
		SCALE					.0150

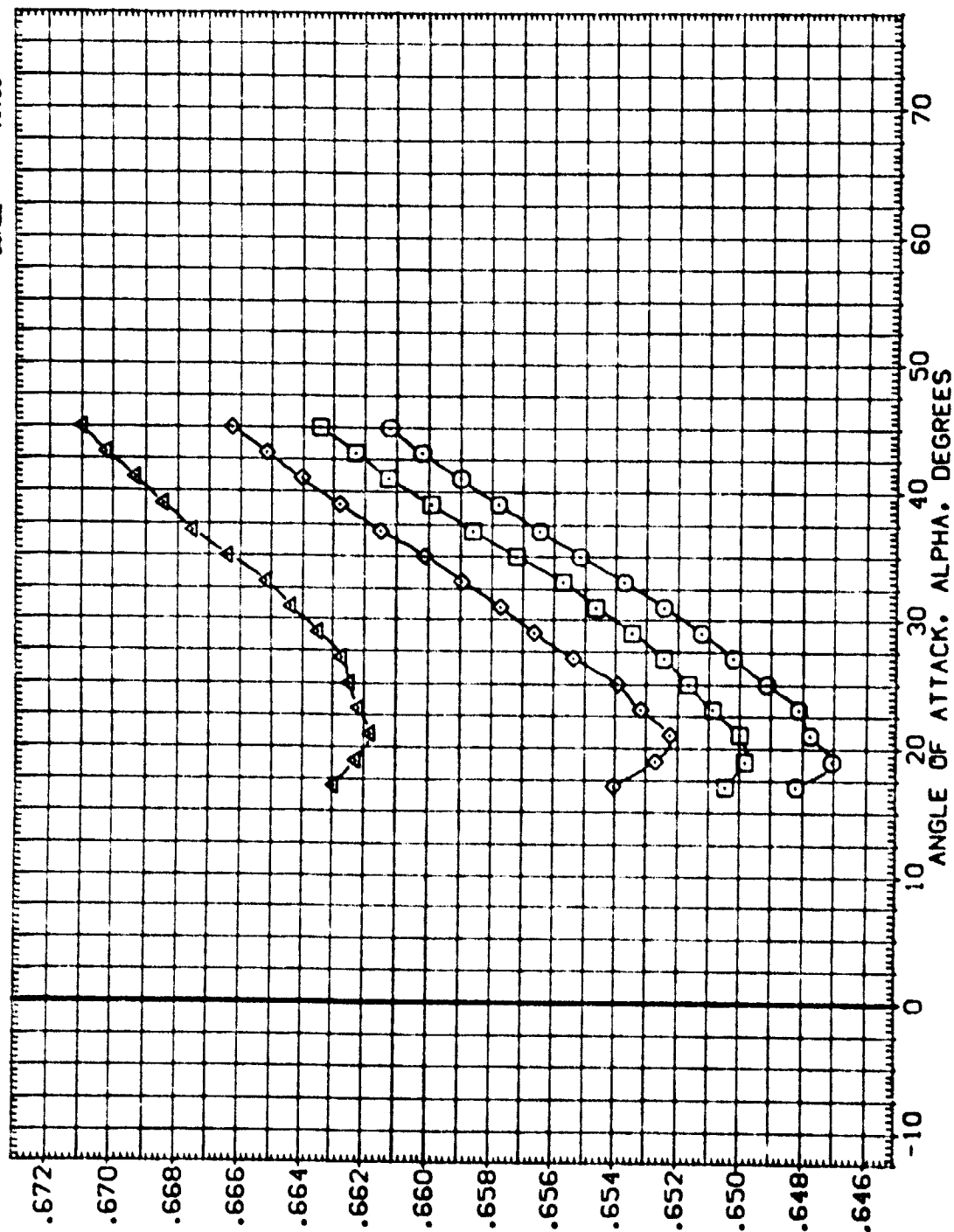


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(C1V038)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116	-20.000	.000	.000	-20.000	SREF 2690.0000 SQ.FT.
(C1V034)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116	-10.000	.000	.000	-10.000	WREF 474.8100 IN.
(C1V001)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116	.000	.000	.000	.000	BREF 936.6900 IN.X0
(C1V033)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116	10.000	.000	.000	10.000	YHREF 1076.6900 IN.Y0
						ZHREF 375.0100 IN.Z0
						SCALE .0150

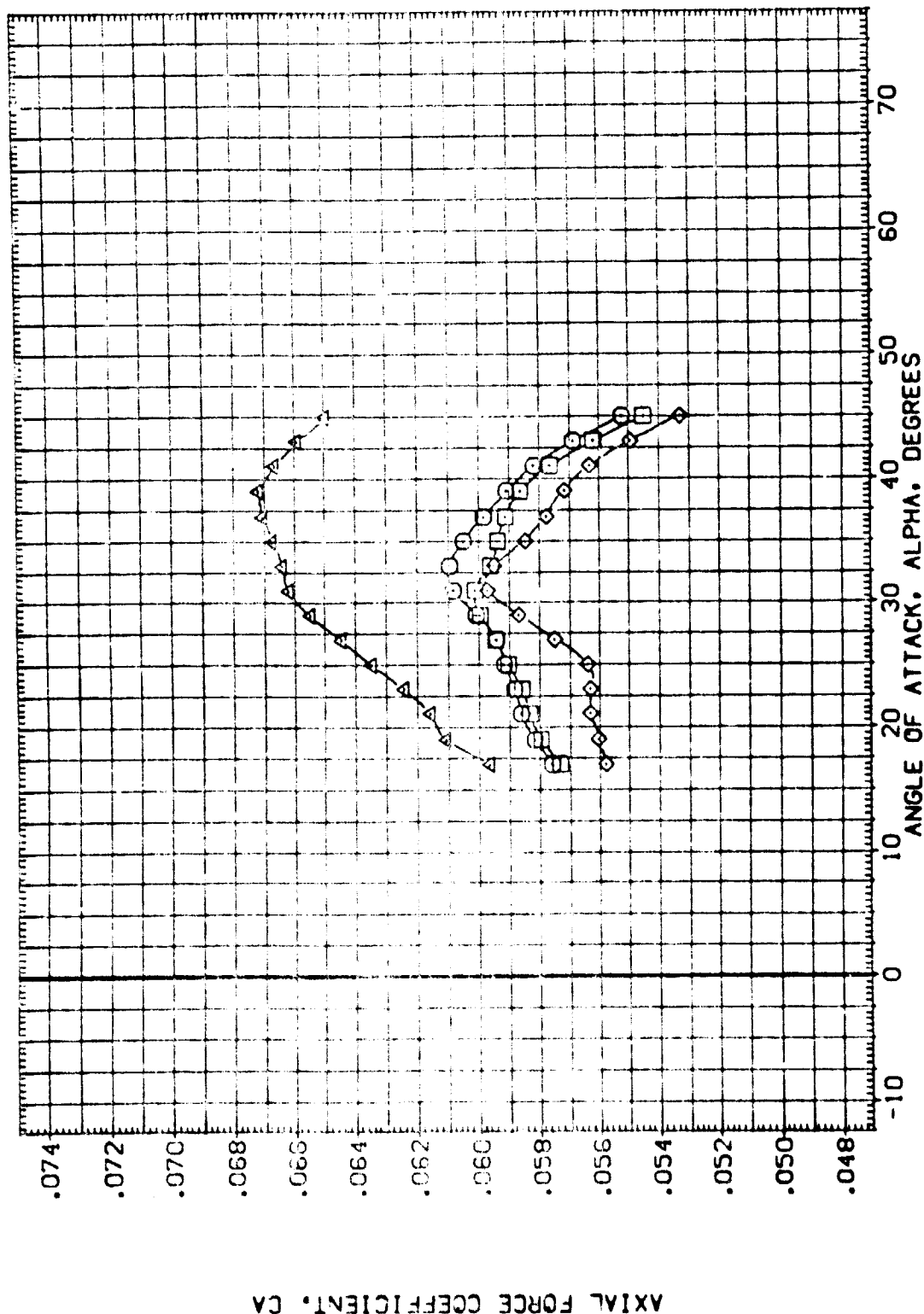


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CIV038)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V112	-20.000	.000	.000	-20.000	SREF 2680.0000 SQ.FT.
(CIV034)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	-10.000	.000	.000	-10.000	LREF 474.8100 IN.
(CIV001)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	.000	.000	.000	.000	BREF 936.6800 IN.
(CIV033)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	10.000	.000	.000	10.000	XPRP 1076.6800 IN.
						YPRP .0000 IN.
						ZPRP .0000 IN.
						SCALE .0150

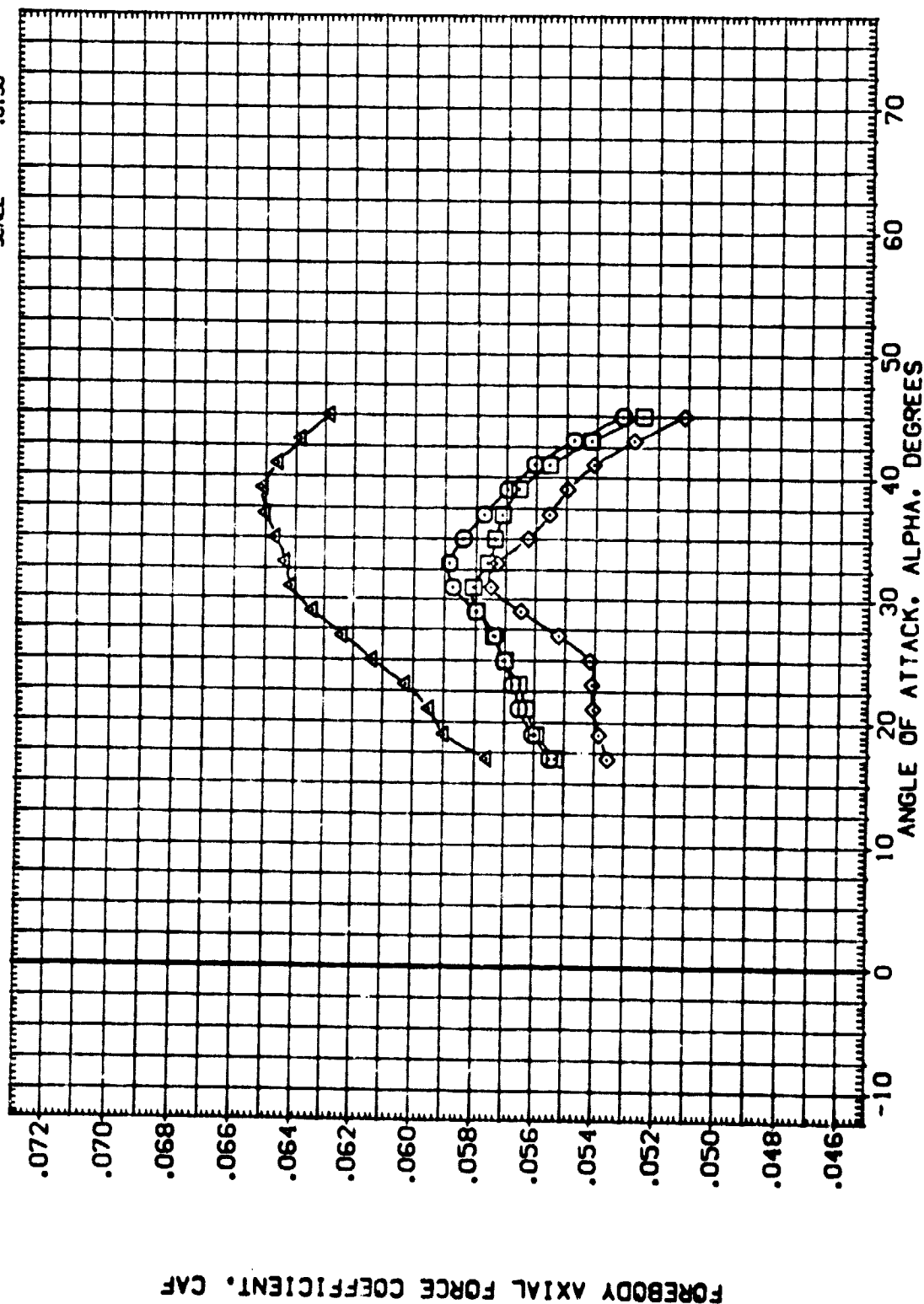


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CTW039) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116

(CTW034) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116

(CTW001) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116

(CTW003) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116

ELV-L0 ELV-L1 ELV-R1 ELV-R0

-30.000 .000 .000 -20.000

-10.000 .000 .000 -10.000

10.000 .000 .000 10.000

REFERENCE INFORMATION

SIZE 3690.0000 SQ. FT.

LREF 474.8100 IN.

BREF 936.5800 IN.

XMRP 1076.5800 IN.X0

YMRP .0000 IN.Y0

ZMRP 375.0000 IN.Z0

SCALE .0150

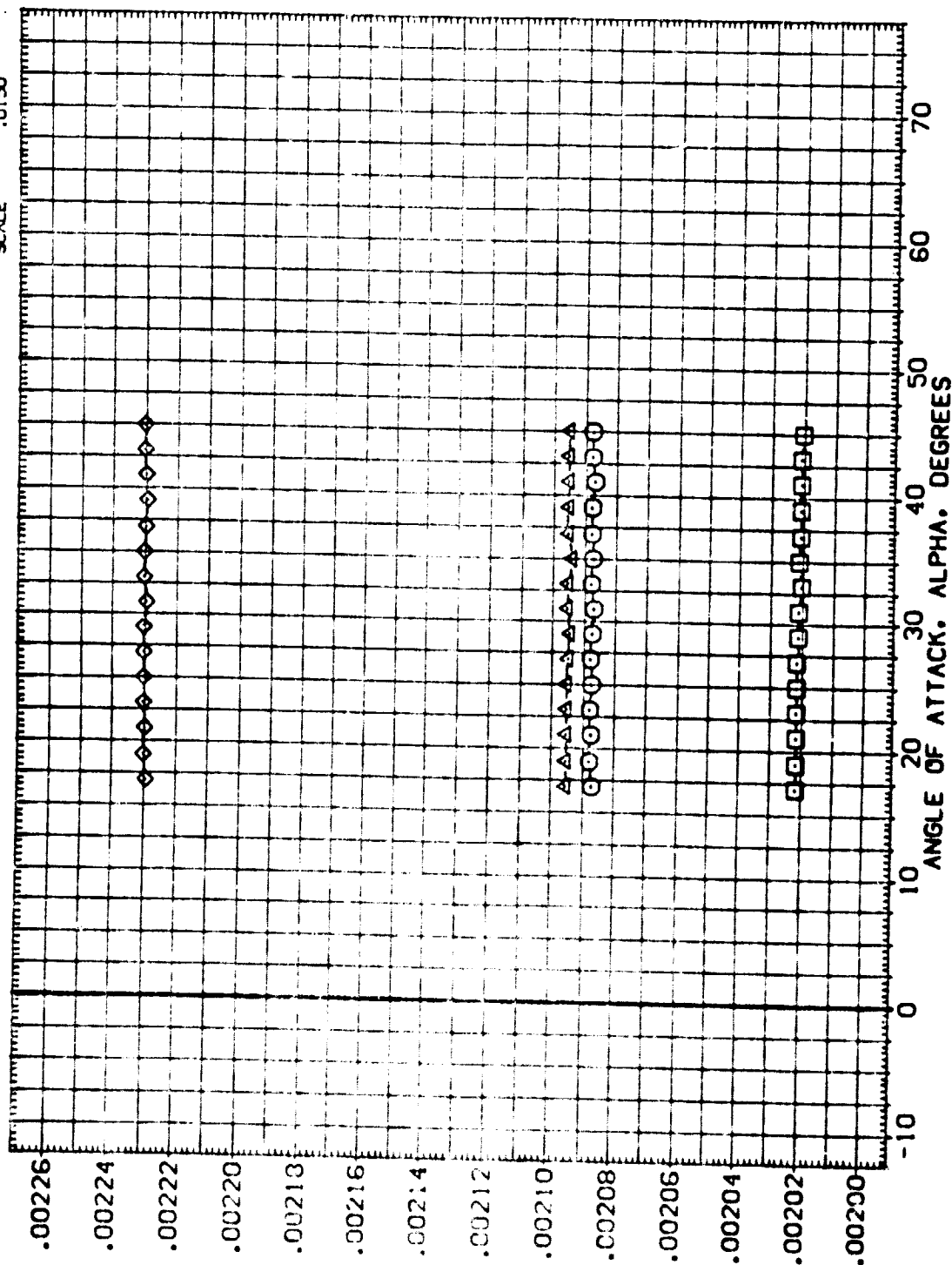


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFID. DATA	DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(CTV038)	Q	Q475 B26 C9 E43 F8 M16 N28 R3 V8 V116	-20.000	.000	.000	-20.000	SREF 2650.0000 SQ.FT.
(CTV034)	X	Q475 B26 C9 E43 F8 M16 N28 R3 V8 V116	-10.000	.000	.000	-10.000	LREF 474.8100 IN.
(CTV001)		Q475 B26 C9 E43 F8 M16 N28 R3 V8 V116	10.000	.000	.000	10.000	BREF 836.6800 IN.X0
(CTV033)		Q475 B26 C9 E43 F8 M16 N28 R3 V8 V116					XTRP 1076.0000 IN.Y0
							ZTRP 375.0000 IN.Z0
							SCALE .0150

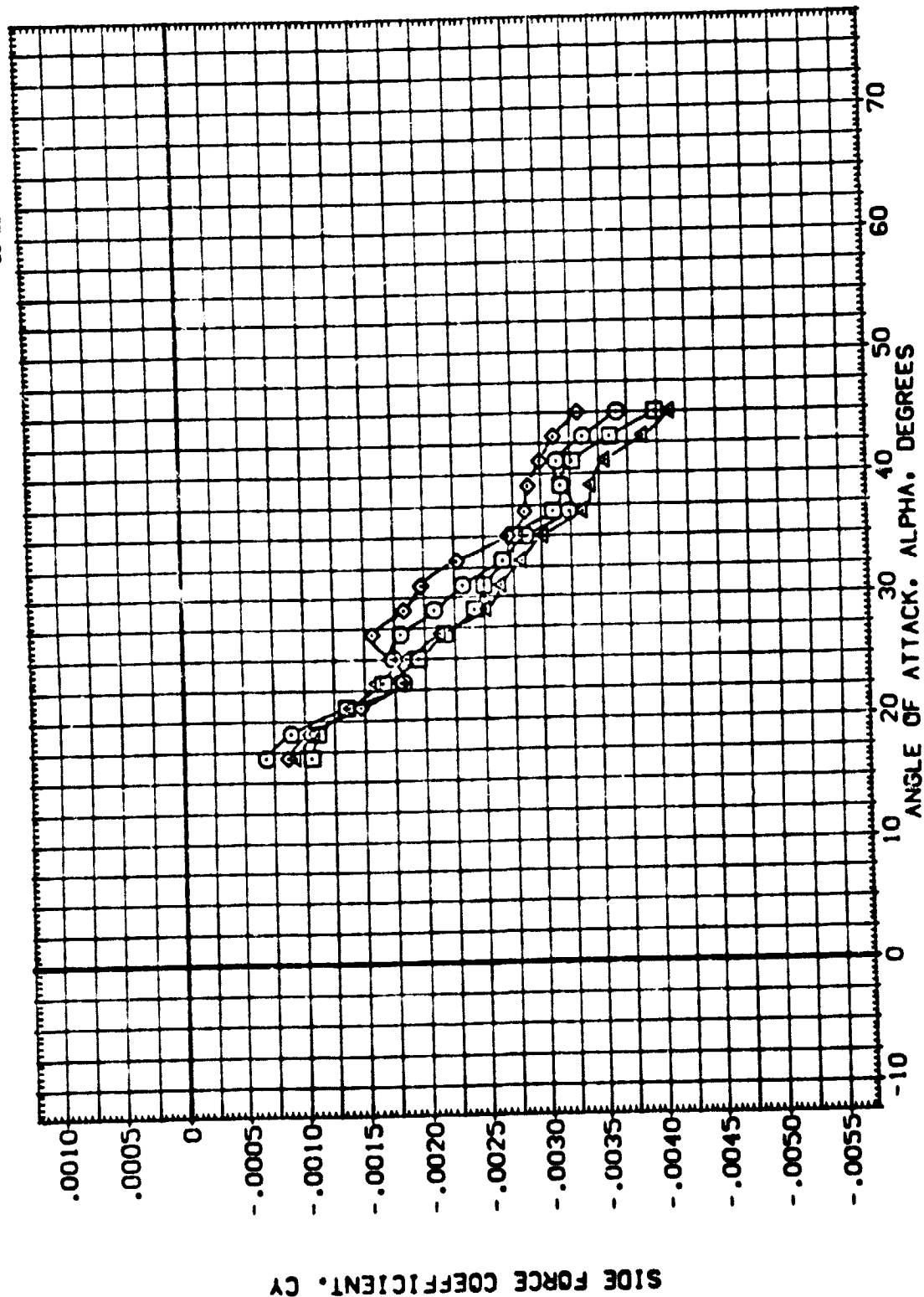


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00



DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(ATV030)	DA79 826 CS E43 F8 H16 N28 RS V8 V116
(ATV031)	DA79 826 CS E43 F8 H16 N28 RS V8 V116
(ATV032)	DA79 826 CS E43 F8 H16 N28 RS V8 V116
(ATV033)	DA79 826 CS E43 F8 H16 N28 RS V8 V116

ELV-L0    ELV-L1    ELV-R1    ELV-R0

-20.000	.000	.000	-20.000
-10.000	.000	.000	-10.000
.000	.000	.000	.000
10.000	.000	.000	10.000

REFERENCE INFORMATION

SLREF	2650.0000	50.FT.
LRREF	474.8100	IN.
BRREF	936.6800	IN.
XRREF	1076.6800	IN.
YRREF	.0000	IN.
ZRREF	375.0000	IN.
SCALE	.0150	

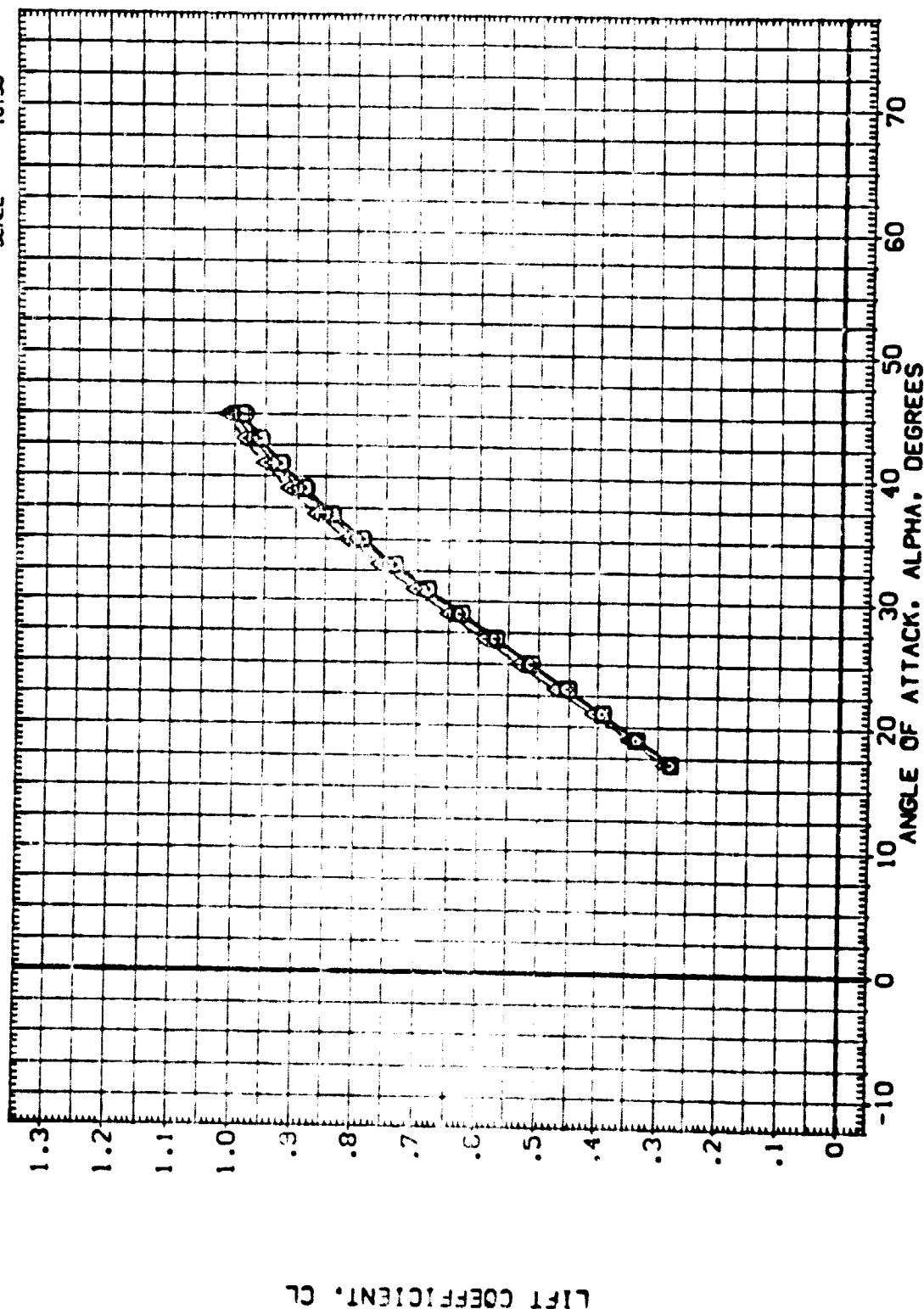


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(A1W038)	DATA 826 C9 E43 F8 M16 N28 R5 V8 V116	-20.000	.000	.000	-20.000	SREF 2690.0000 SQ.FT.
(A1W034)	DATA 826 C9 E43 F8 M16 N28 R5 V8 V116	-10.000	.000	.000	-10.000	LREF 474.8100 IN.
(A1W031)	DATA 826 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	BREF 936.6800 IN.
(A1W033)	DATA 826 C9 E43 F8 M16 N28 R5 V8 V116	10.000	.000	.000	10.000	XREF 1076.6800 IN.
						YREF 375.0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

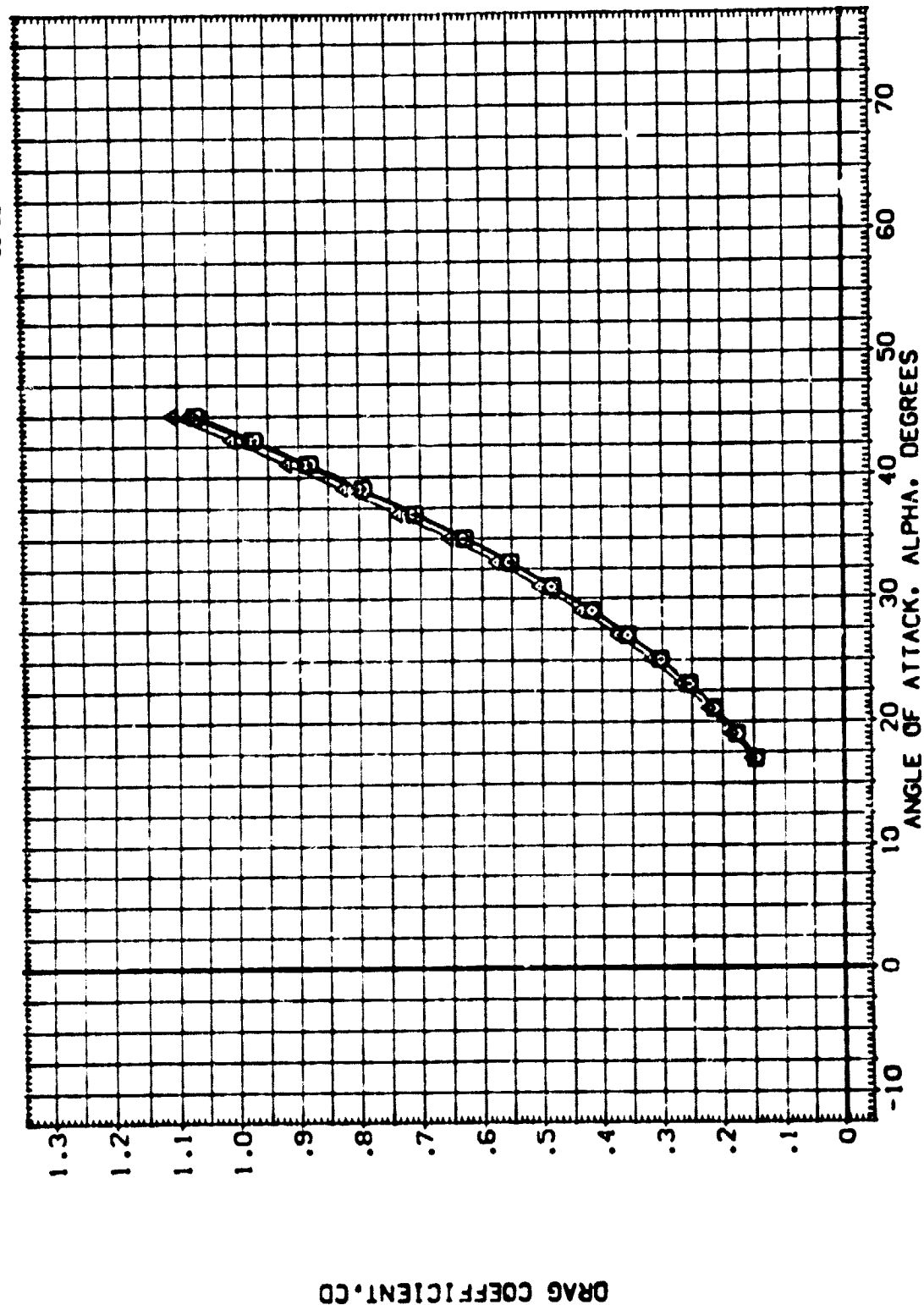


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(ATV0036)	Q479 B26 C3 E43 F8 M16 N28 R5 V8 VII6
(ATV0034)	Q479 B26 C3 E43 F8 M16 N28 R5 V8 VII6
(ATV0031)	Q479 B26 C3 E43 F8 M16 N28 R5 V8 VII6
(ATV0033)	Q479 B26 C3 E43 F8 M16 N28 R5 V8 VII6

ELV-L8	ELV-L1	ELV-R1	ELV-R8
-20.000	.000	.000	-20.000
-10.000	.000	.000	-10.000
10.000	.000	.000	10.000

REFERENCE INFORMATION

GREF	2650.000	50 FT.
LREF	474.8100	IN.
RREF	906.6800	IN.
XREF	1076.6800	IN.
YREF	.0000	IN.
ZREF	375.0000	IN.
SCALE	.0150	

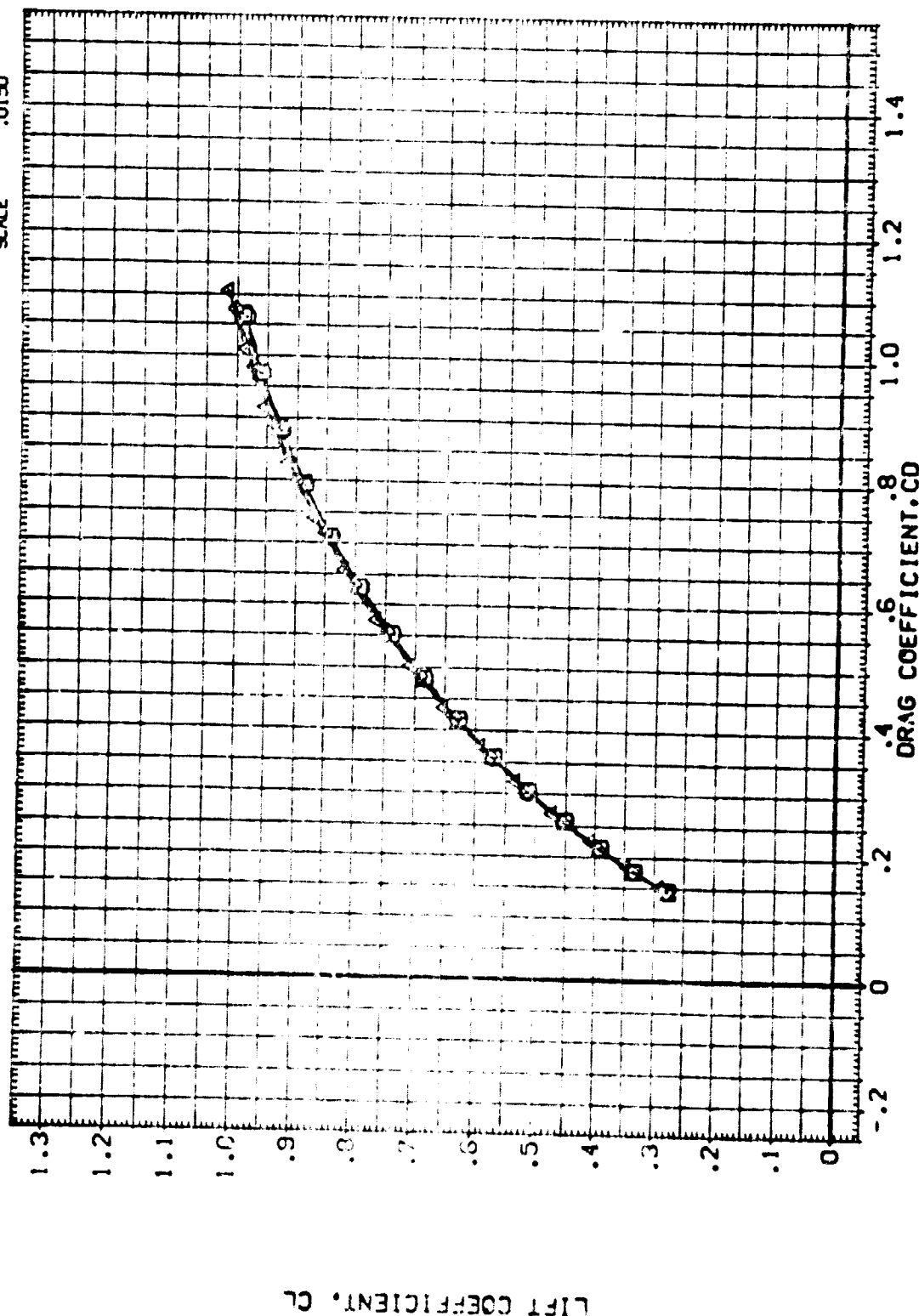


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED  
(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELV-L0	ELV-L1	ELV-R1	ELV-R0	REFERENCE INFORMATION
(ATV038)	Q479 B26 C9 E43 F8 M16 N28 R5 V8 V116	-20.000	.000	.000	-20.000	SREF 2630.0000 SQ.FT.
(ATV034)	Q479 B26 C9 E43 F8 M16 N28 R5 V8 V116	-10.000	.000	.000	-10.000	LREF 474.8100 IN.
(ATV001)	Q479 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.000	.000	.000	BREF 936.6800 IN.
(ATV033)	Q479 B26 C9 E43 F8 M16 N28 R5 V8 V116	10.000	.000	.000	10.000	XMRP 1076.6800 IN.
						YMRP .0000 IN.
						ZMRP 375.0000 IN.
						SCALE .0150

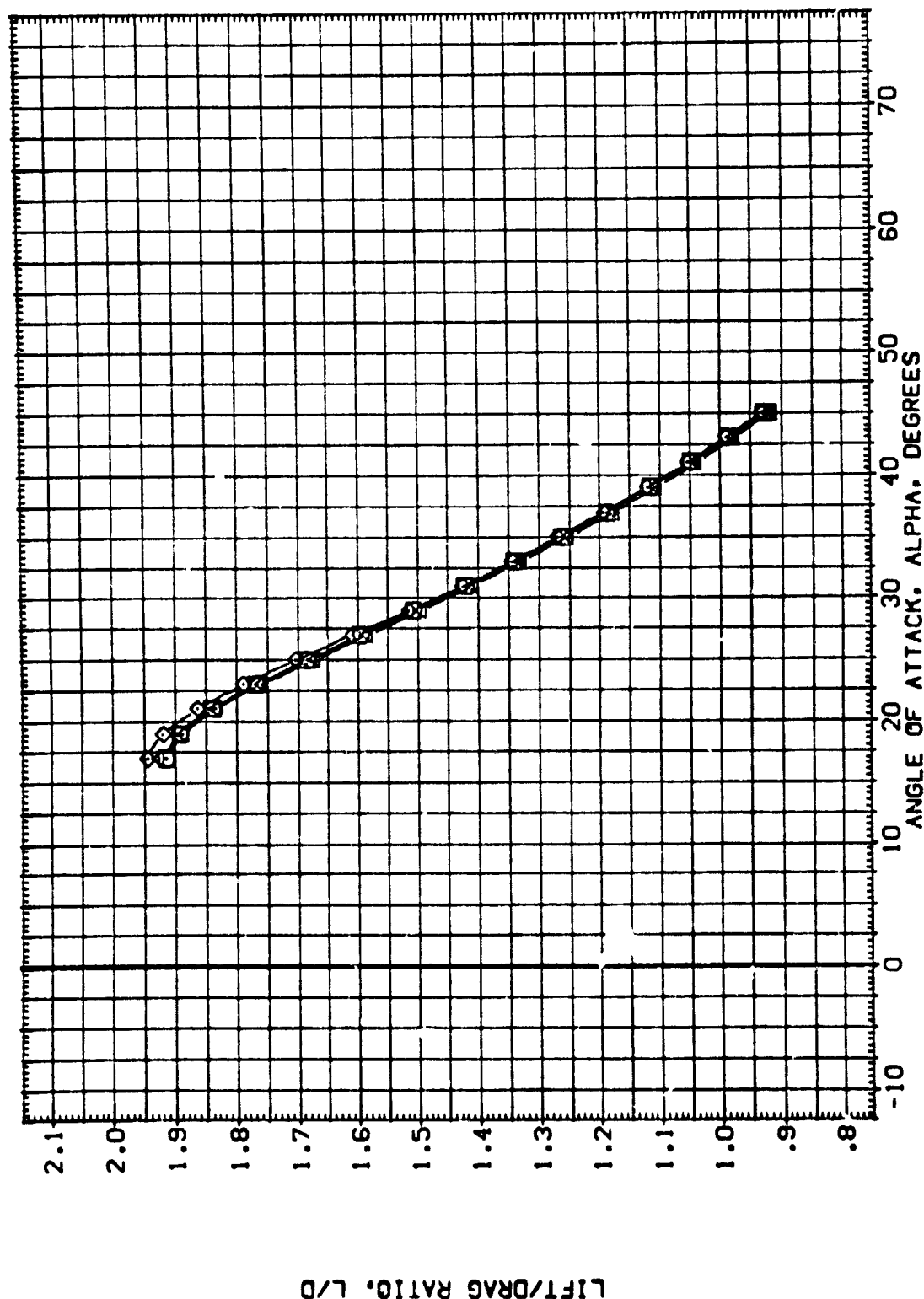


FIG. 13 OUTBOARD ELEVON EFFECTIVENESS WITH INBOARDS UNDEFLECTED

(A)MACH = 8.00

(DTW038)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
SQ.FT. 2690.0000  
IN. 474.8100  
IN.X0 936.6800  
IN.Y0 1076.6800  
IN.Z0 375.0000  
ZPRP .0150  
SCALE

DATA SOURCE

DLE-LO

DLE-LO

PARAMETRIC VALUES

MACH

ALPHA

SREF 2690.0000  
LREF 474.8100  
BREF 936.6800  
XPRP 1076.6800  
YPRP 375.0000  
ZPRP .0150  
SCALE

DLE-LO

DLE-LO

SETA

SPDRK

17.000

10.000

10.000

-20.000

9.000

55.000

21.000

10.000

10.000

.000

3.530

RVL

23.000

375.0000

375.0000

.000

3.530

RVL

25.000

.0150

.0150

.000

3.530

RVL

27.000

INCREMENTAL NORMAL FORCE COEFFICIENT, CLCN

SYMBOL  
□  
◇  
△  
▽  
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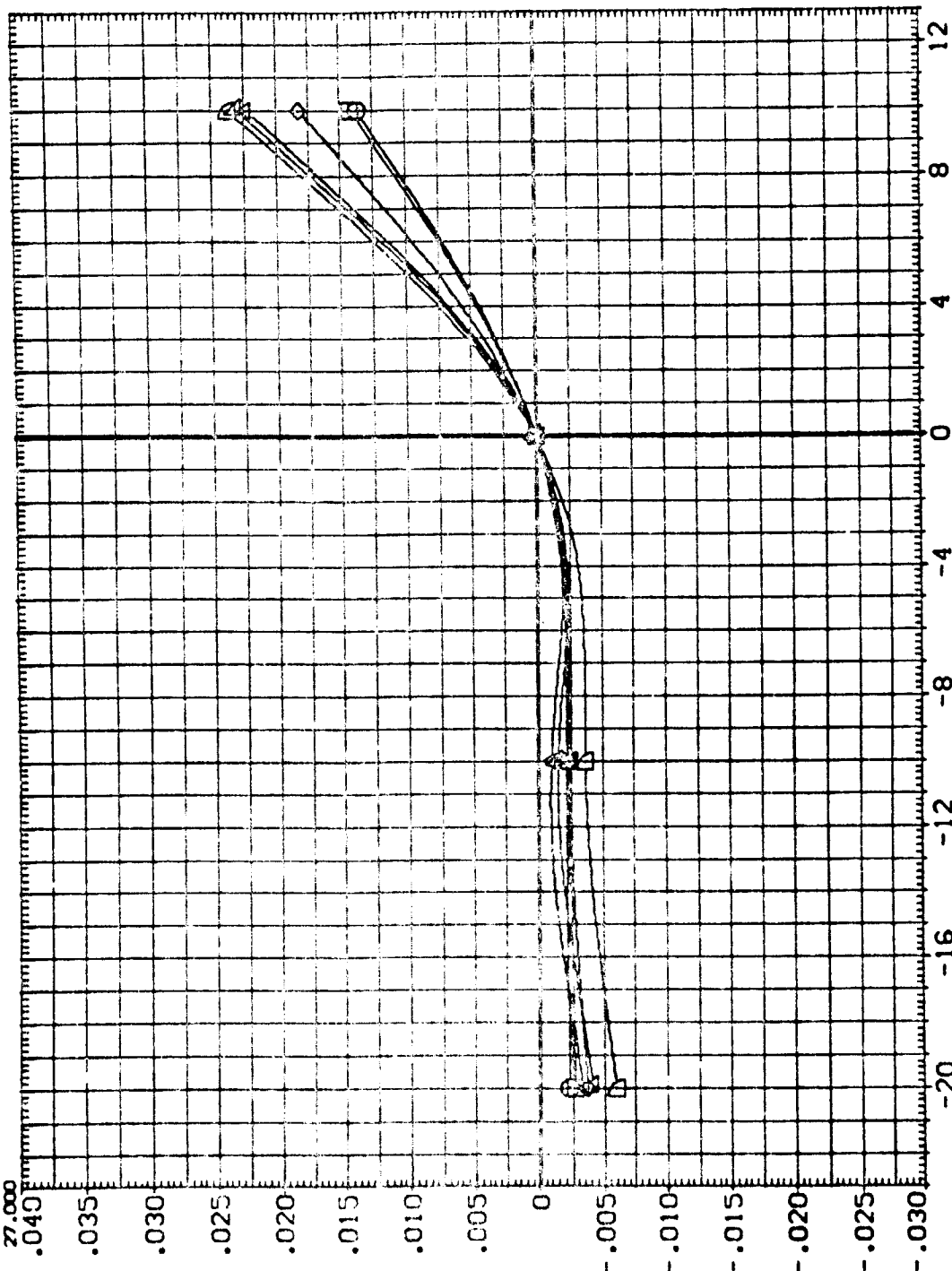
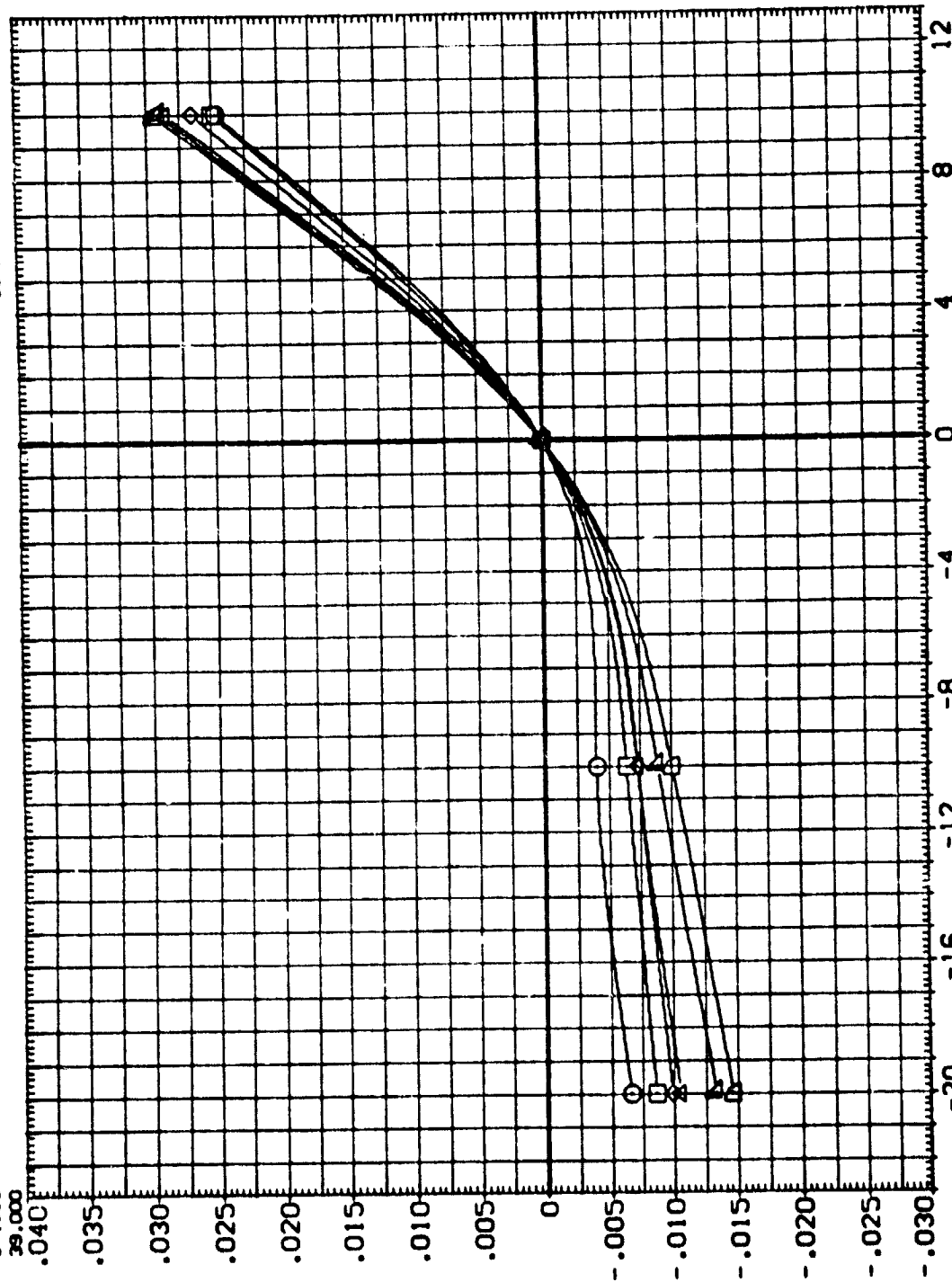


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLE-LC	SREF	REFERENCE INFORMATION
29.000		8.000 BETA	.000 DATASET	DLE-LD	-10.000	2650.0000	50.FT.
31.000	SPOERK	55.000 RUDDER	.000 DTW038	-20.000	10.000	474.8100	IN.
33.000	RVL	3.530	.000 DTW001	.000	10.000	936.6800	IN.
35.000						1076.6800	IN. X8
37.000						375.0000	IN. Y8
39.000						375.0000	IN. Z8
						SCALE	.0150



INCREMENTAL NORMAL FORCE COEFFICIENT, DLTCN

FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLE-LO	DLE-LO	REFERENCE INFORMATION
○	41.000		8.000	.000	DTW038	-20.000	STEF	2690.0000
□	43.000	SP08K	55.000	.000	DTW038	.000	REF	474.8100
◇	45.000	RN/L	3.530	.000	DTW033	.000	REF	936.8800
							YMRP	1076.6800
							ZMRP	.0000
							SCALE	.0150

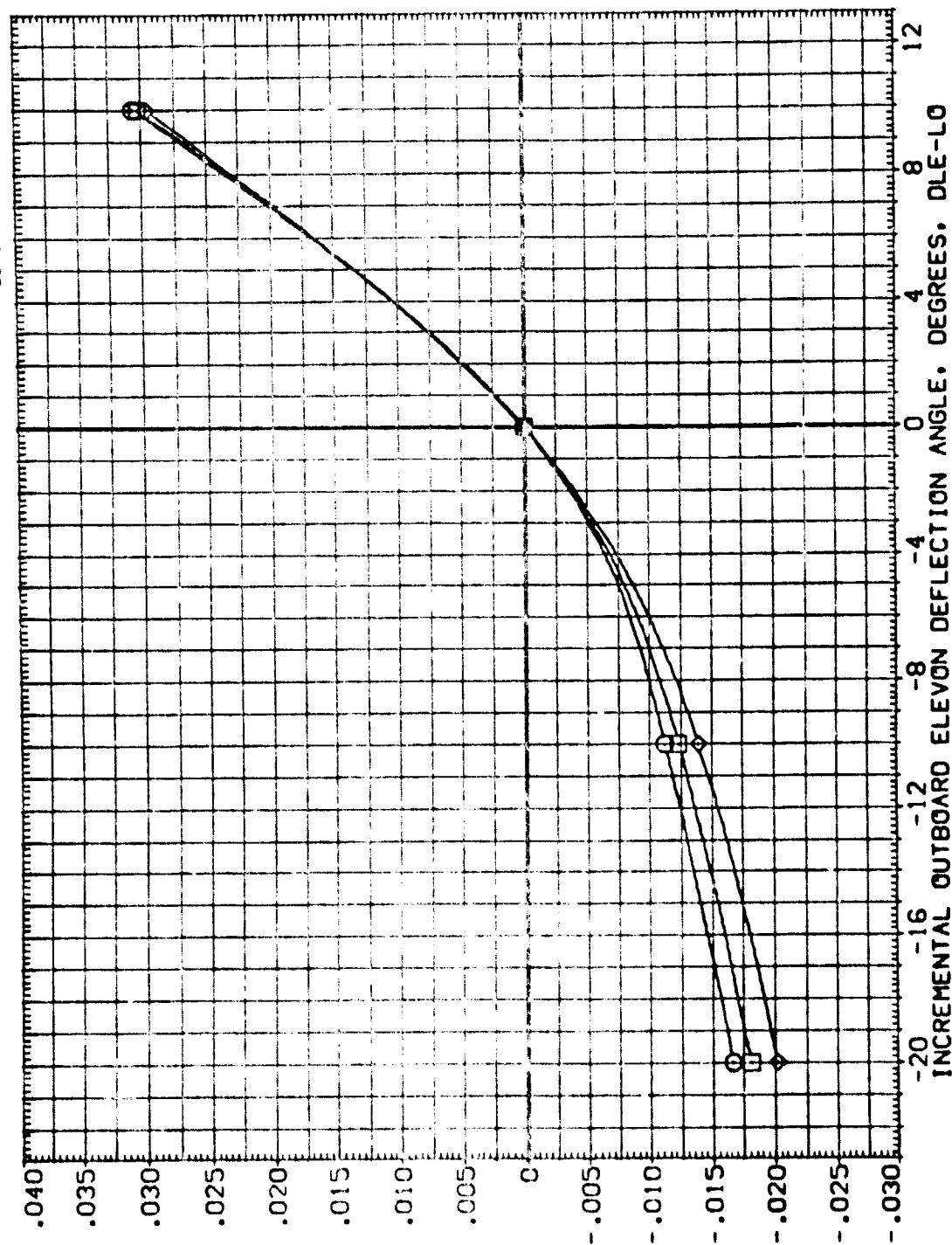


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

GA79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	17.000	8.000	BETA	DTW038	2630.0000
◇	19.000	55.000	RUDER	DTW001	474.8100
◇	21.000	3.530			936.6800
◇	23.000				1076.6800
◇	25.000				375.0000
◇	27.000				375.0000
					SCALE .0150

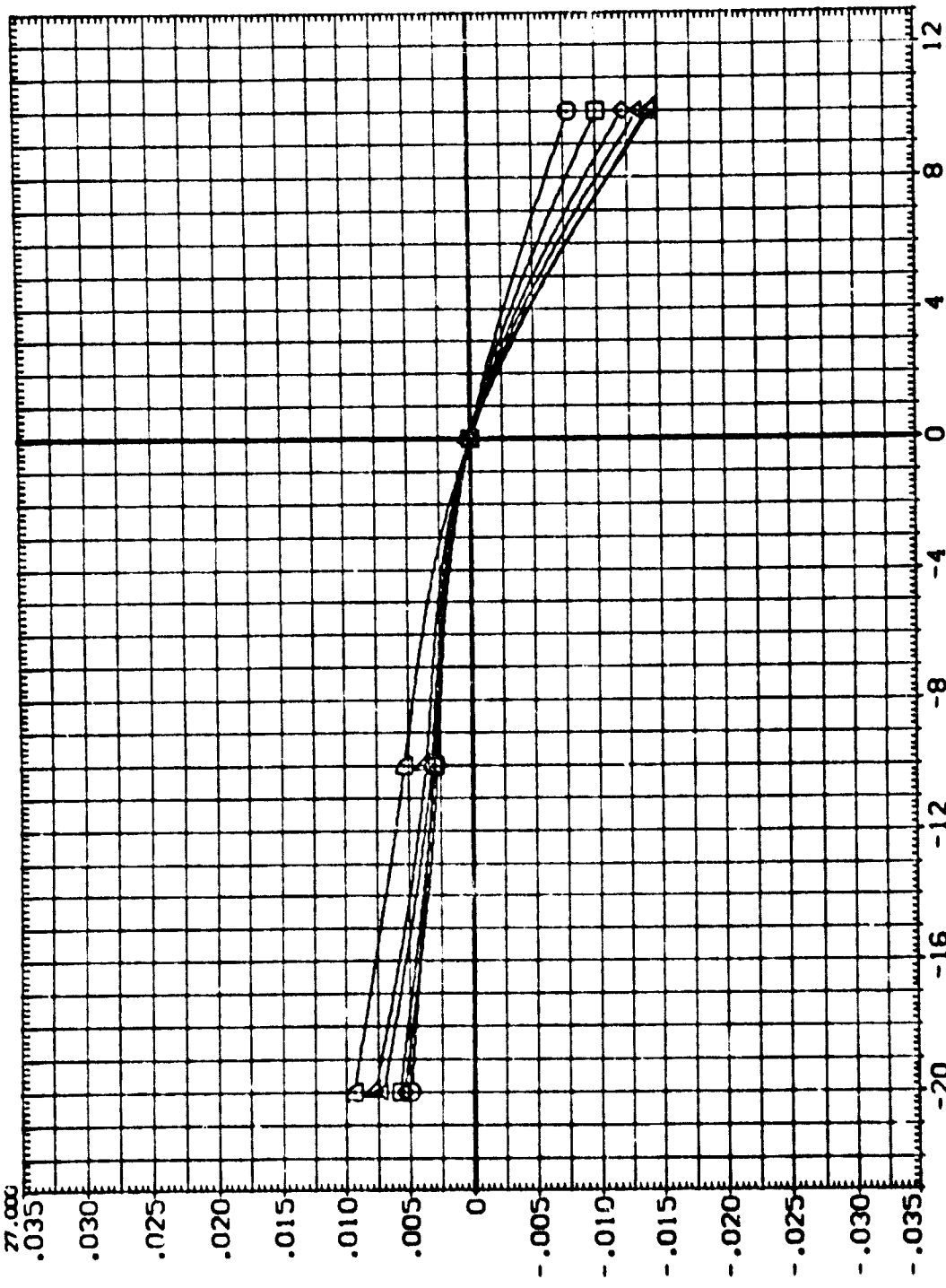


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
ALPHA	MACH	BETA	DATA SET	DLE-LO	DLE-LO	SREF	SO.FT.
29.000	8.000	RUDDER	.000 DTW038	-20.000	-10.000	474.8100	IN.
31.000	55.000	3.530	.000 DTW001	.000	10.000	936.6800	IN.
33.000	RV/L					1076.6800	IN.X0
35.000						375.0000	IN.Y0
37.000						375.0000	IN.Z0
39.000						SCALE	.0150

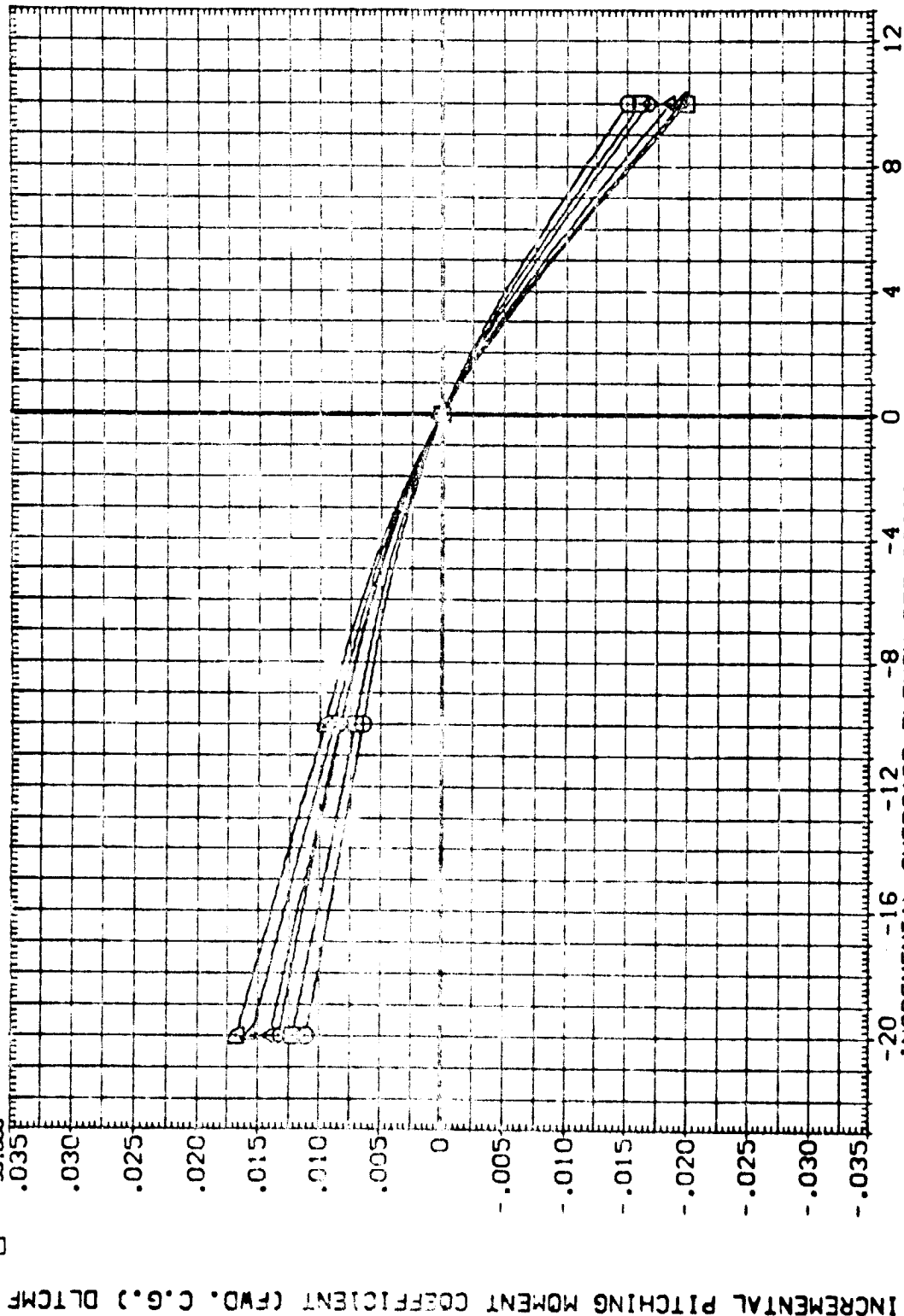


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
ALPHA	DLE-L0	SO, FT.
17.000	.000	2650.0000
19.000	.000	474.8100
21.000	.000	936.6800
23.000	.000	1076.6800
25.000	.000	14.70
27.000	.000	14.70
		375.0000
		SCALE
		.0150

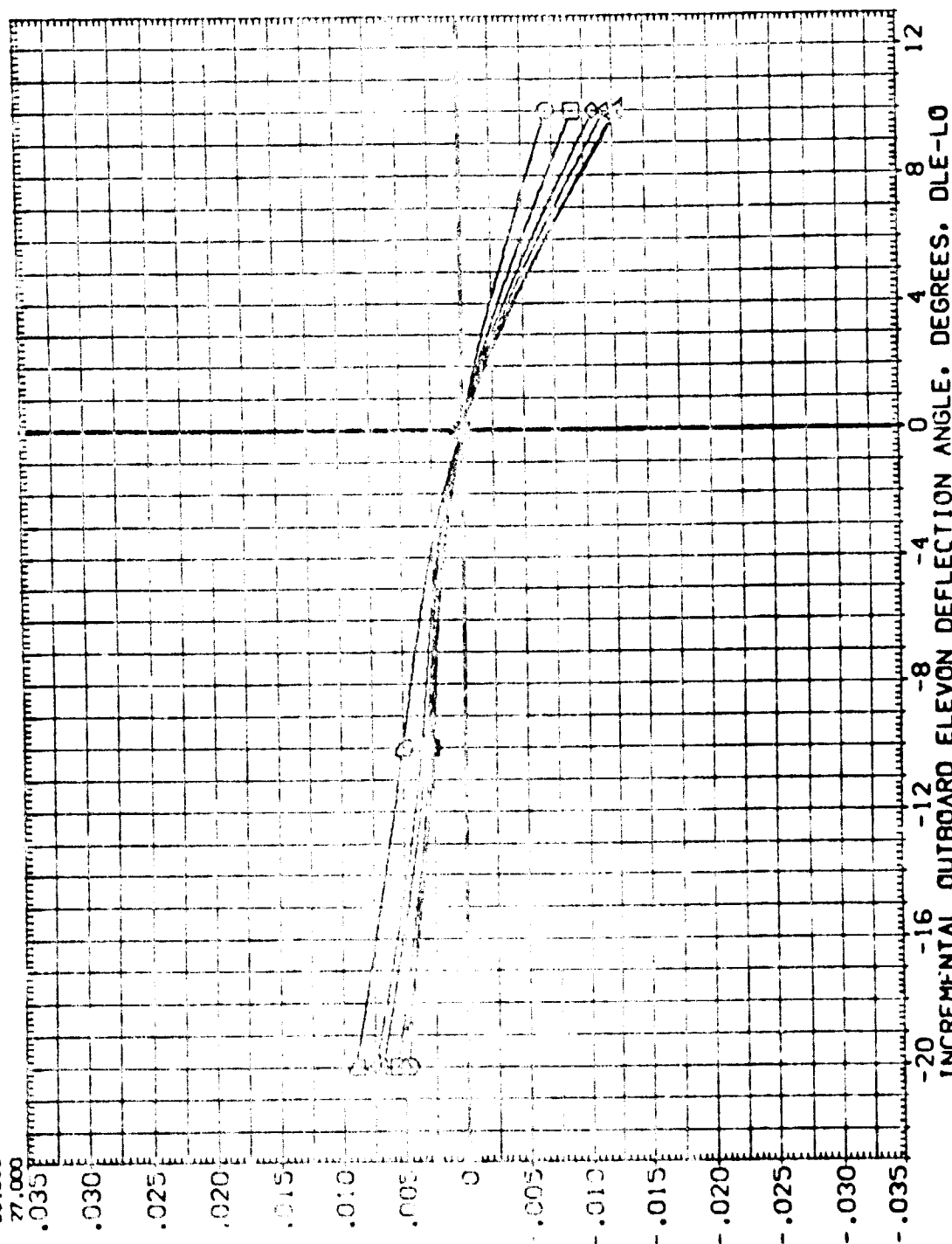



FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

(DTW038)

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HA 

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**PLATE 1**

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SYNOPSIS

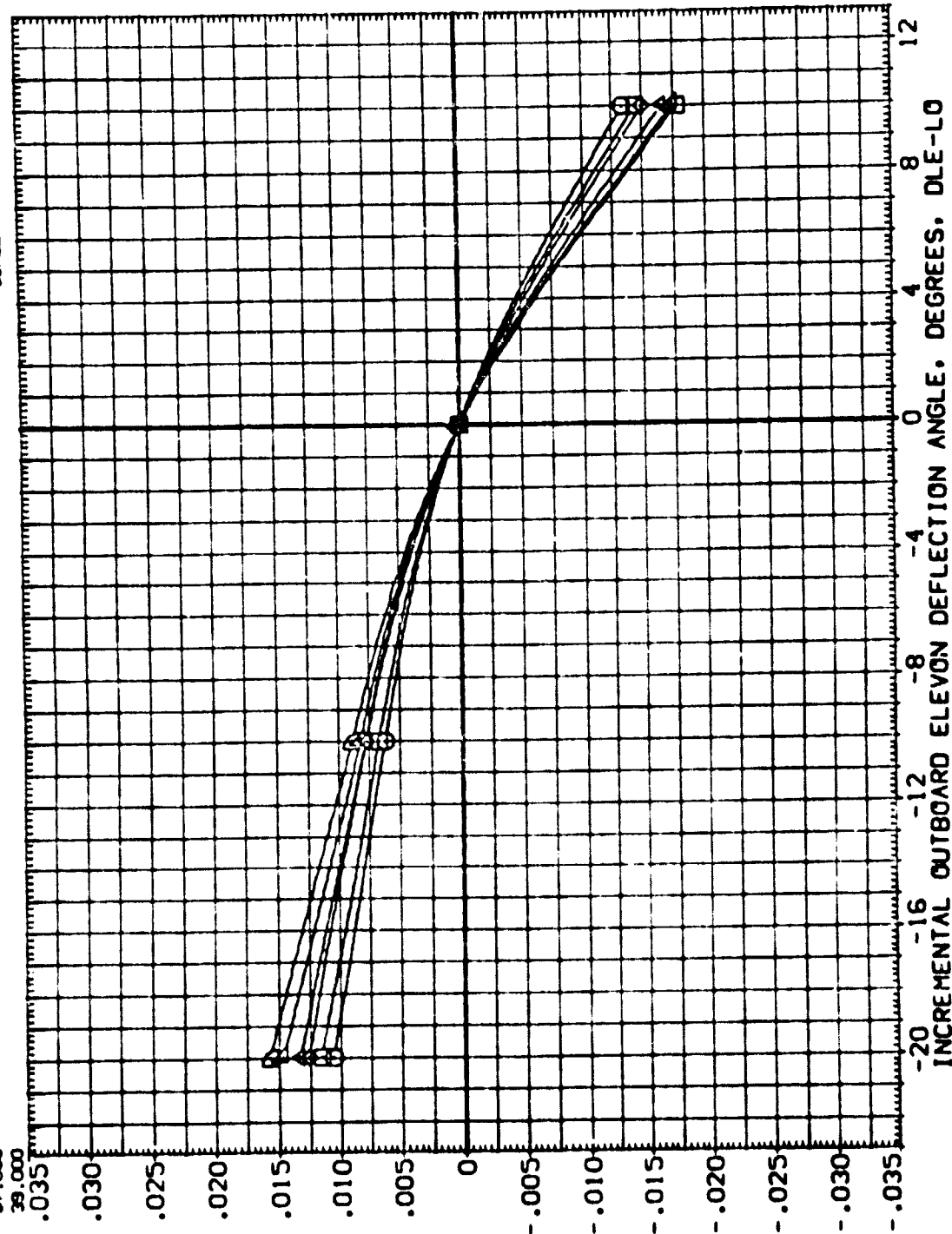


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

SYMBOL  
 ○  
 □  
 ◇

ALPHA  
 41.000  
 43.000  
 45.000

PARAMETRIC VALUES  
 MACH 8.000  
 SPDRK 55.000  
 RNL 3.530

DATA SOURCE  
 DATASET  
 .000  
 .000  
 .000

OLE-LO  
 -20.000  
 -20.000  
 .000

REFERENCE INFORMATION  
 SREF 2630.0000 SQ.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XREF 1076.6800 IN.  
 YREF .0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

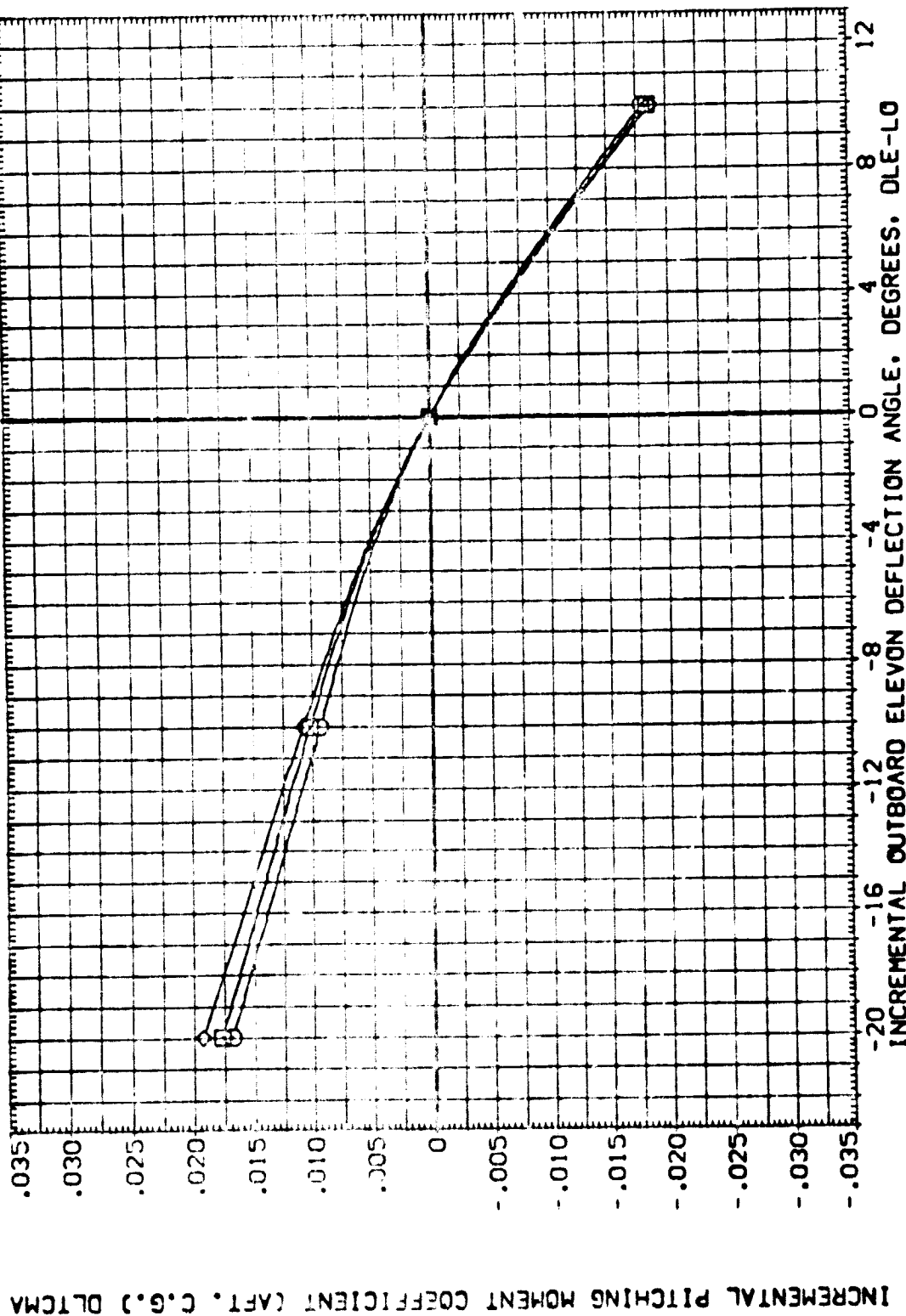


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

(DTW038)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
17.000	8.000	BETA	DLE-LO	2650.0000
19.000	55.000	RUDDER	DTW038	474.8100
21.000	3.530		DTW001	936.6800
23.000				1076.6800
25.000				YARP .0000
27.000				ZARP .0000
				SCALE .0150

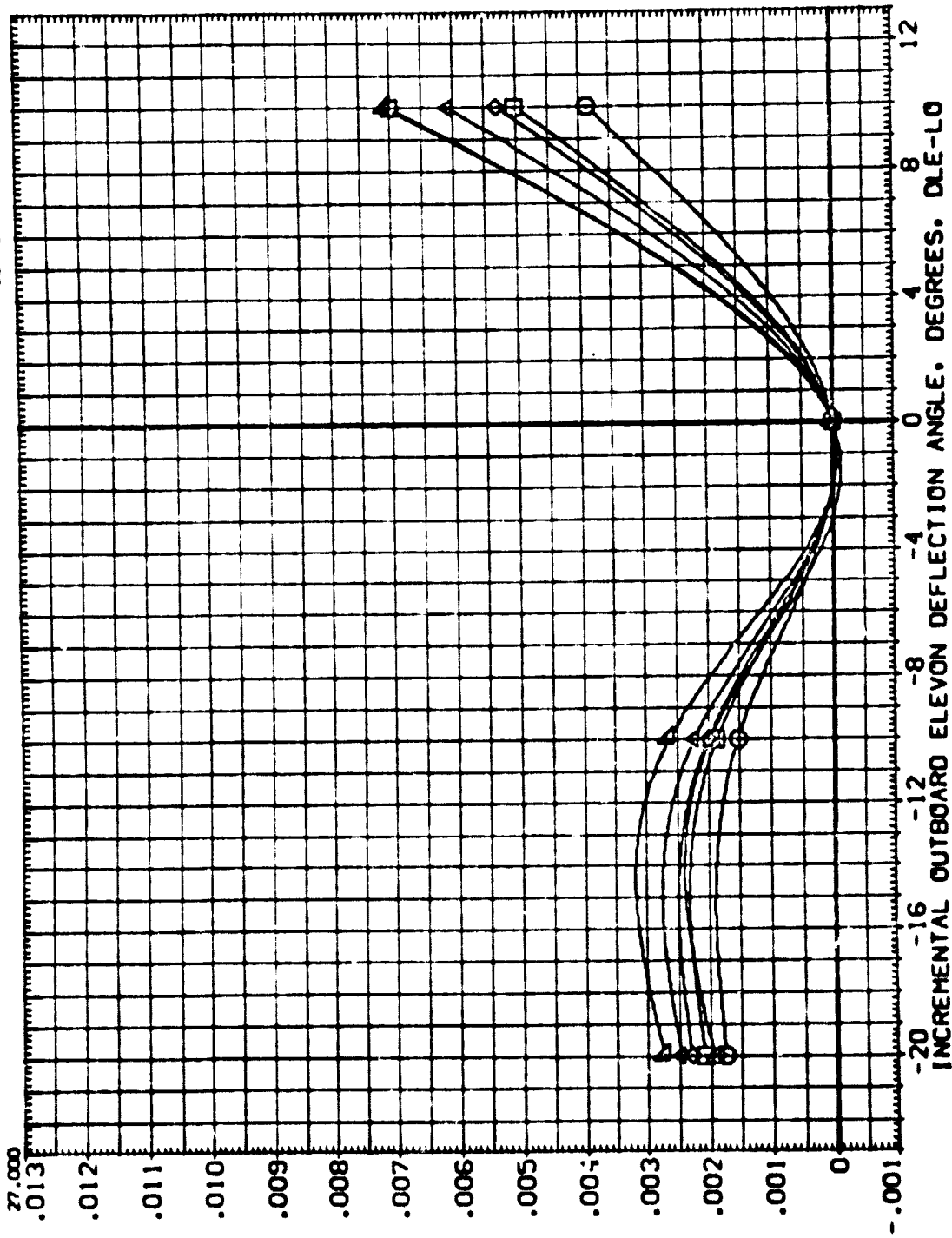


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

**000000**

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000  
39.000

WASH  
SPRINGS  
PA

PARAVET  
8.000  
56.000  
3.530

**VALUES  
BETA  
R-SDR**

88

138

00 SOURCE

136 3433

088

2690.0  
474.8  
935.6  
1075.5

11/11/2005

1306  
1307  
1308

10.0000  
74.8100  
25.6800  
5.6800

IN IN IN SQ.F.

1306  
1307  
1308

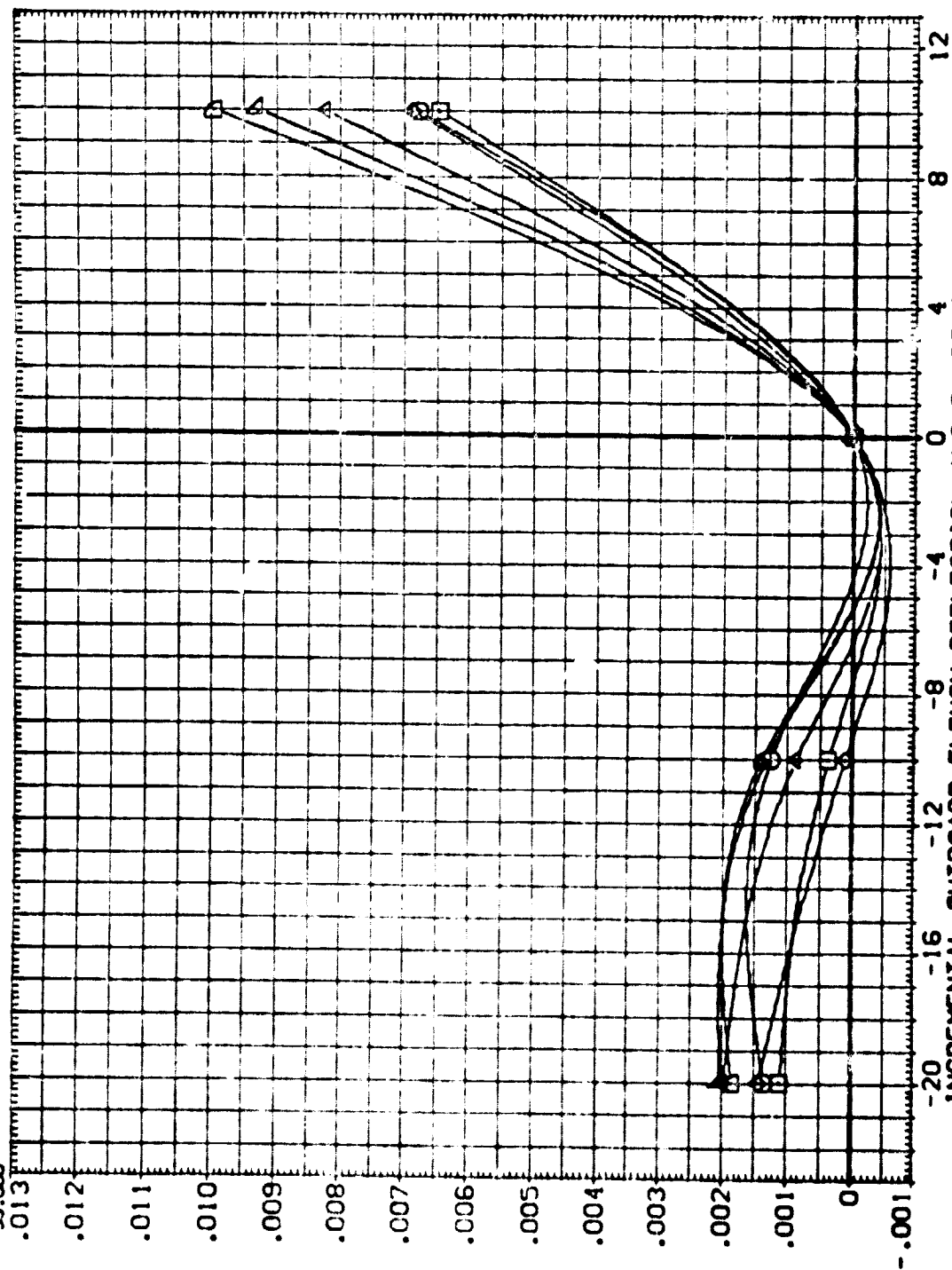


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 H16 N28 R5 V8 W116 (DTW038)

**Speed** ○ □ ◇

ALPHA  
41.000  
43.000  
45.000

WASH  
SPRINGS  
TENN

PARAMETER	
0.000	
55.000	
3.530	

VALUES  
BETA  
RUDDER

88

100  
030  
1354

**A SOURCE**

**07**

**000**

**000**

1535

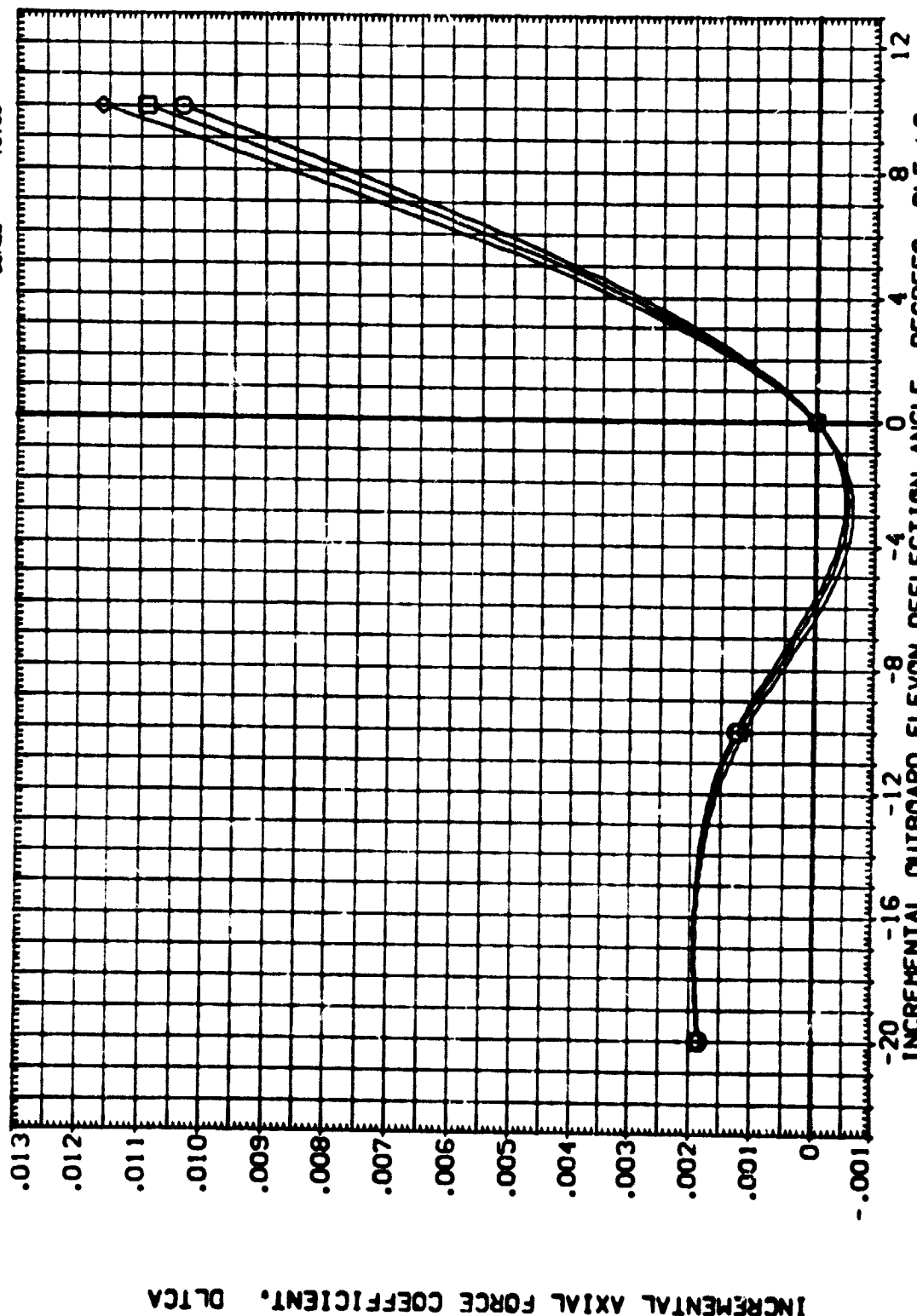
988

7690  
474  
936

0000

41.

REFERENCE INFORMATION	
SREF	2630.0000 50.FT
LREF	474.8100 IN.
BREF	536.6800 IN.
XREF	1076.6800 IN.
YREF	0.0000 IN.
ZREF	375.0000 IN.
SCALE	.0150



**FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS**







0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	41.000	8.000	BETA	DLE-L0	SREF 2690.0000 SQ.FT.
□	43.000	55.000	RUDDER	DTW038	LREF 474.8100 IN.
◇	45.000	3.530		DTW001	BREF 906.6800 IN.
					YREF 1076.0800 IN.X0
					ZREF 375.0000 IN.Y0
					SCALE .0150

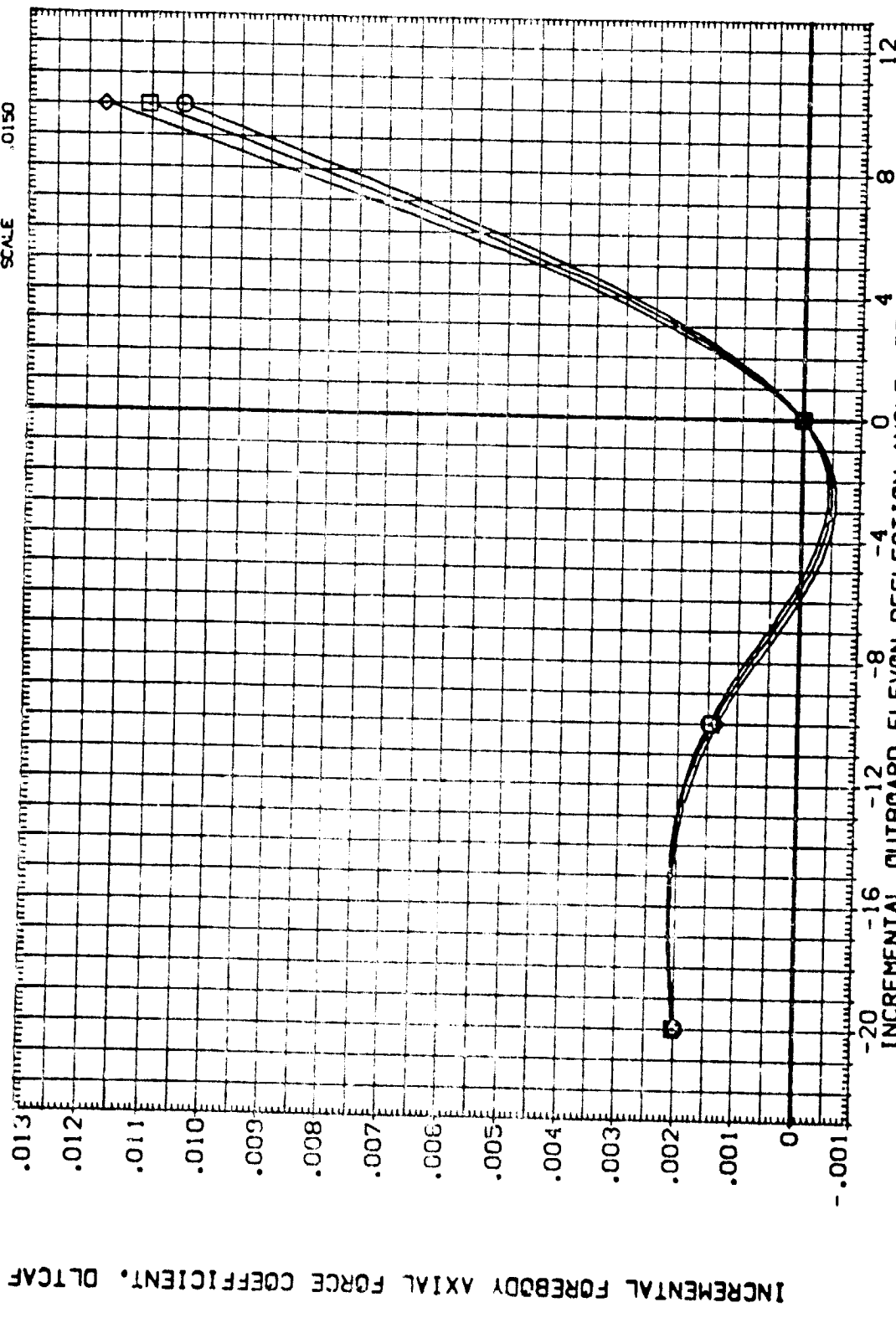


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	ALPHA	MACH	BETA	.000	DATASET	DLE-L0	SREF
□		17.000	8.000	.000	DTW038	-10.000	474.8100
◇		19.000	55.000	.000	DTW033	10.000	936.6800
△		21.000	3.530	.000			1076.6800
▽		23.000					375.0000
◇		25.000					375.0000
▽		27.000					.0150

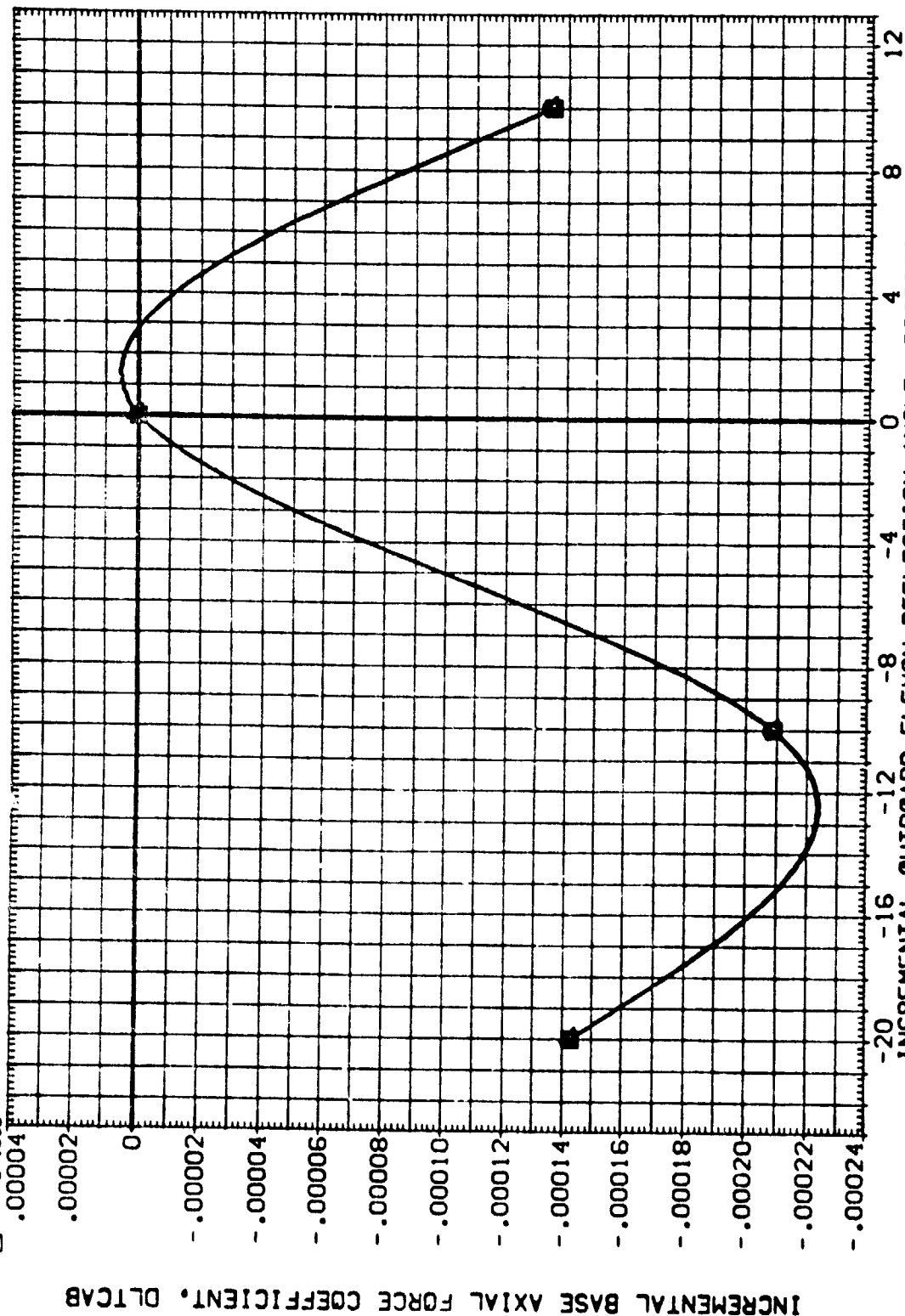


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

(DTW038)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	29.000	8.000	BETA	.000 DATASET	2630.0000 SQ.FT.
◇	31.000	55.000	RUDER	.000 DTW038	474.8100 IN.
△	33.000	3.530		.000 DTW001	936.8800 IN.
▽	35.000				1076.8800 IN.
◇	37.000				375.0000 IN.
					375.0000 IN.
					SCALE .0150

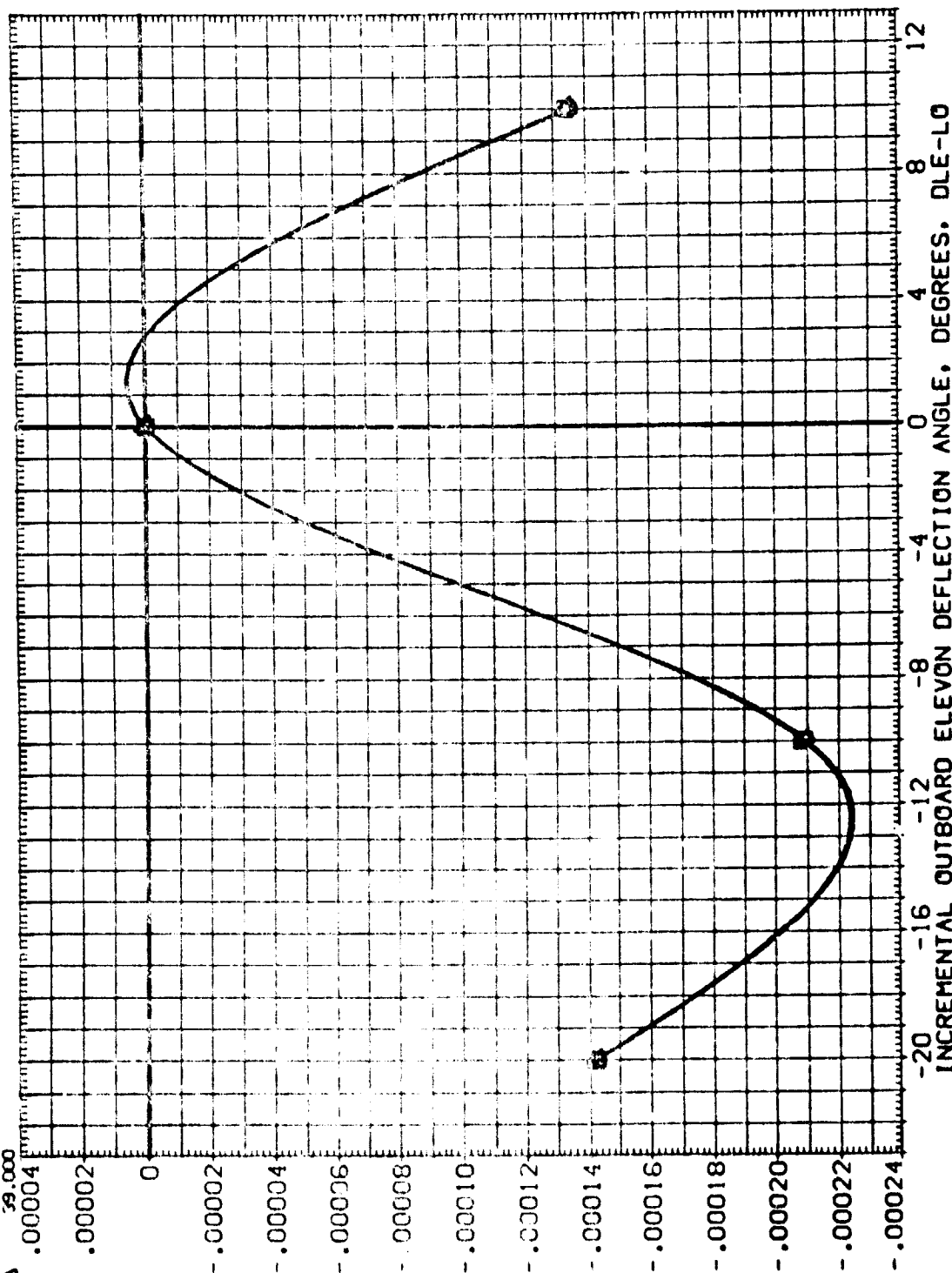


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	BETA	RUDDER	DLE-L0	DLE-L0	SREF	SO.FT.
41.000	8.000	55.000	3.530	.000	DTW038	1 REF	IN.
43.000	SP038X			.000	DTW038	8 REF	IN.
45.000	FAVL			.000	DTW038	1076.6800	IN. X0
					YREF	375.0000	IN. Y0
					ZREF	.0150	IN. Z0
					SCALE		

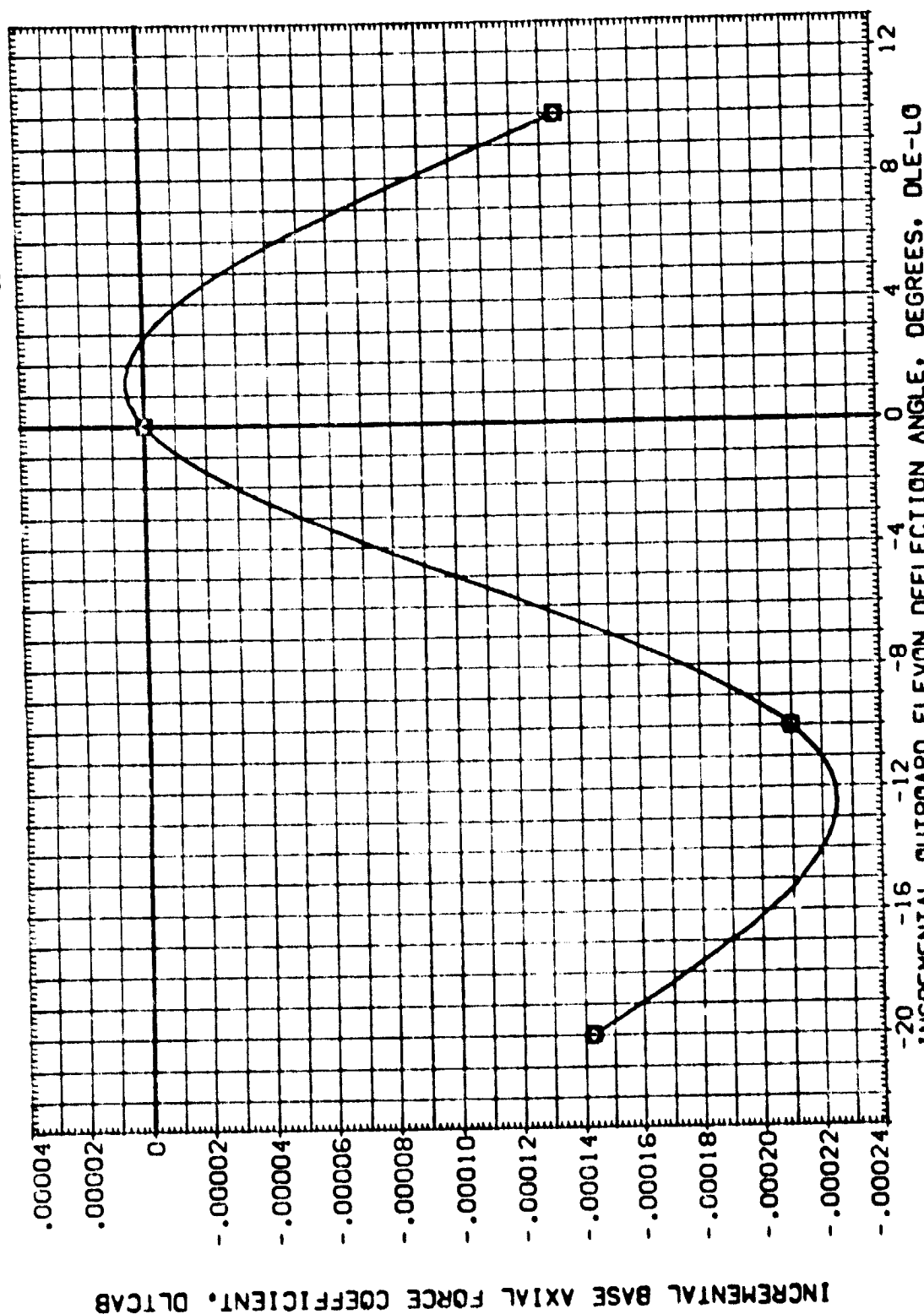


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	17.000	8.000	BETA	.000 DATASET DLE-L0	2690.0000 SO.FT.
□	19.000	55.000	RUDER	.000 DTW038	474.8100 IN.
◇	21.000	3.530		.000 DTW033	936.6800 IN.
△	23.000			.000 DTW001	1076.6800 IN.
▽	25.000				375.0000 IN.
▽	27.000				375.0000 IN.
				SCALE	.0150

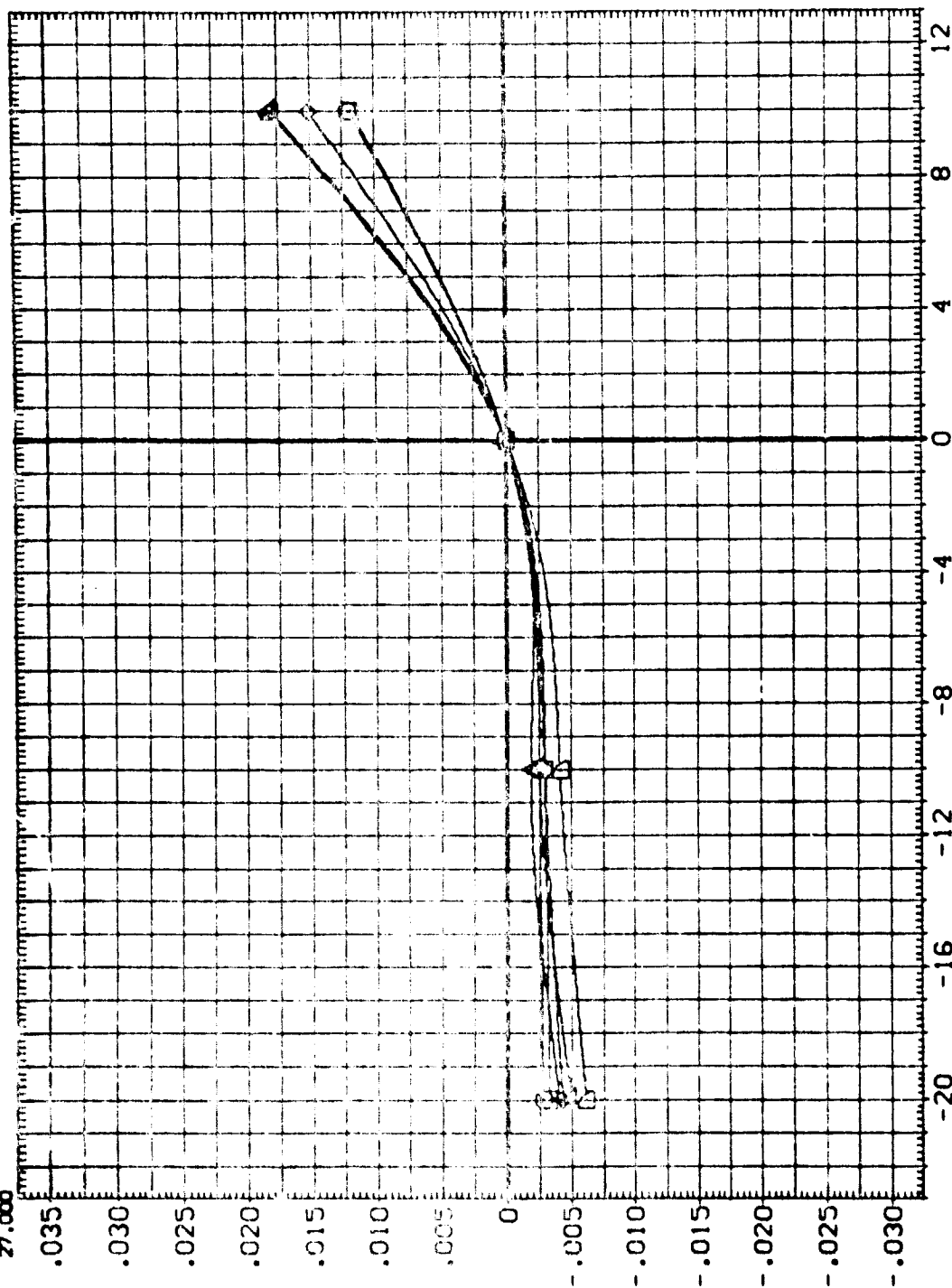


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

ALPH	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
29.000	8.000	BETA	DLE-LO	2690.0000 SQ.FT.
31.000	55.000	RUDER	DLE-LO	474.8100 IN.
33.000	3.530		DTW038	936.6800 IN.
35.000			DTW001	1076.6800 IN.
37.000				375.0000 IN.
39.000				375.0000 IN.
				SCALE .0150

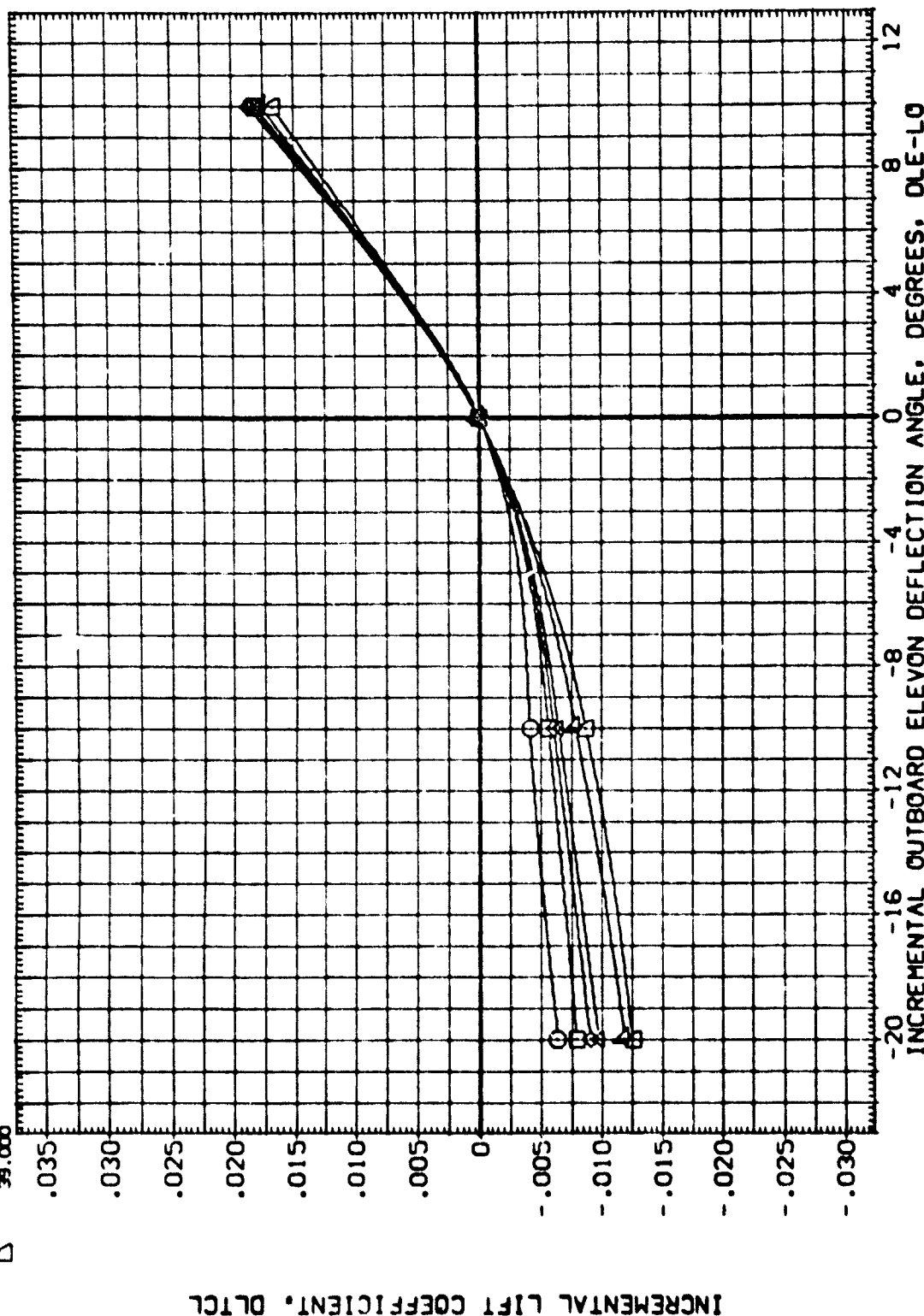


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLE-L0	REFERENCE INFORMATION
○	41.000		8.000	BETA	.000	DLE-L0	SREF 2690.0000 SQ.FT.
□	43.000	SPOBRK	55.000	RUDDER	.000	DTW038	LREF 474.8100 IN.
◇	45.000	RVL	3.530		.000	DTW033	BREF 936.6800 IN.
							XREF 1076.6800 IN.X0
							YREF .0000 IN.Y0
							ZREF 375.0000 IN.Z0
							SCALE .0150

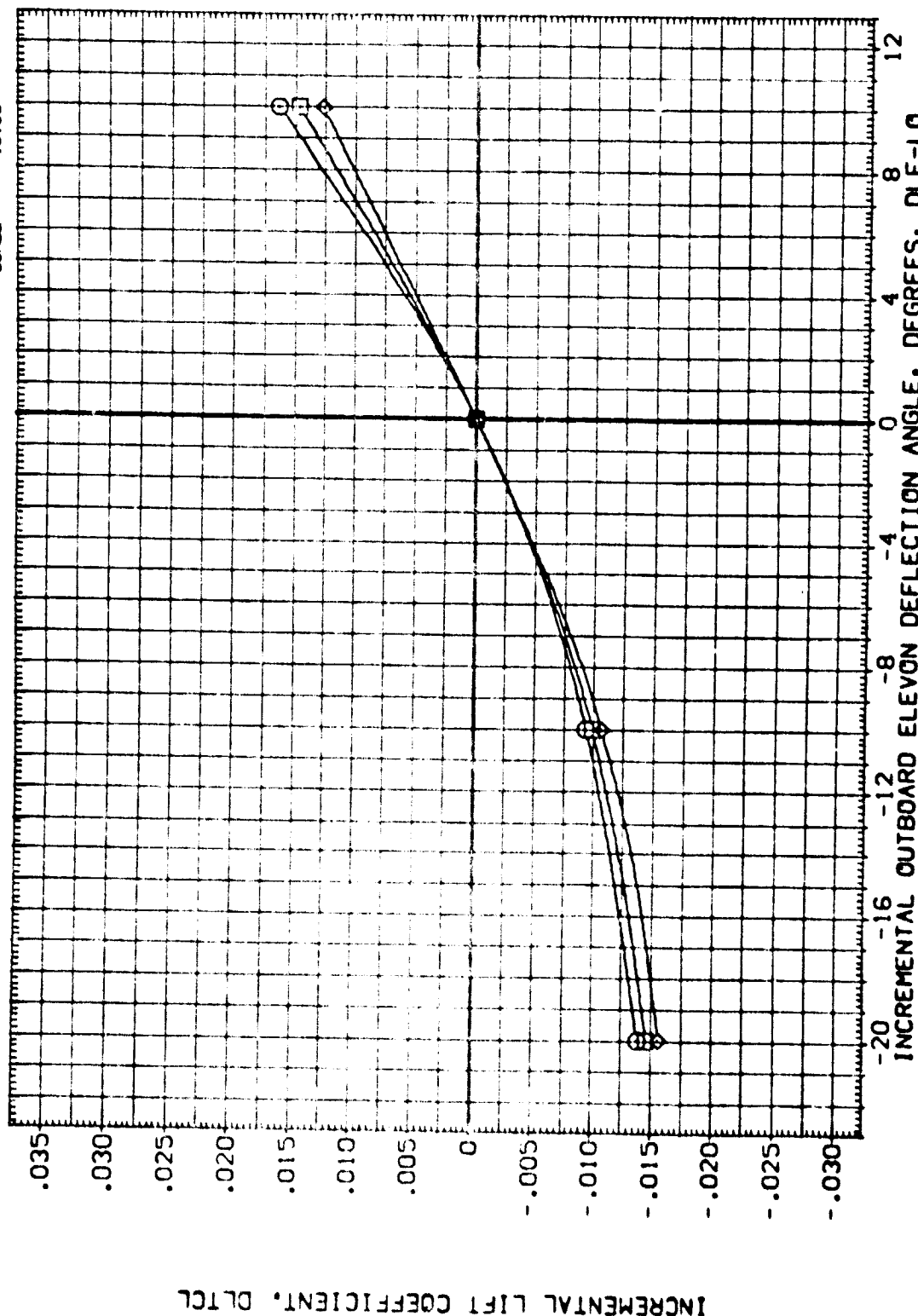


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F3 M16 N28 R5 V8 W116 (DTW038)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	17.000	8.000	BETA	DLE-LQ	2690.0000 SQ.FT.
□	19.000	55.000	RUDDER	DTW038	474.8100 IN.
◇	21.000	3.530		DTW033	936.6800 IN.
△	23.000				1076.6800 IN.X3
▽	25.000				YHRP .0000 IN.Y0
▽	27.000				ZHRP .0000 IN.Z0
				SCALE	375.0150

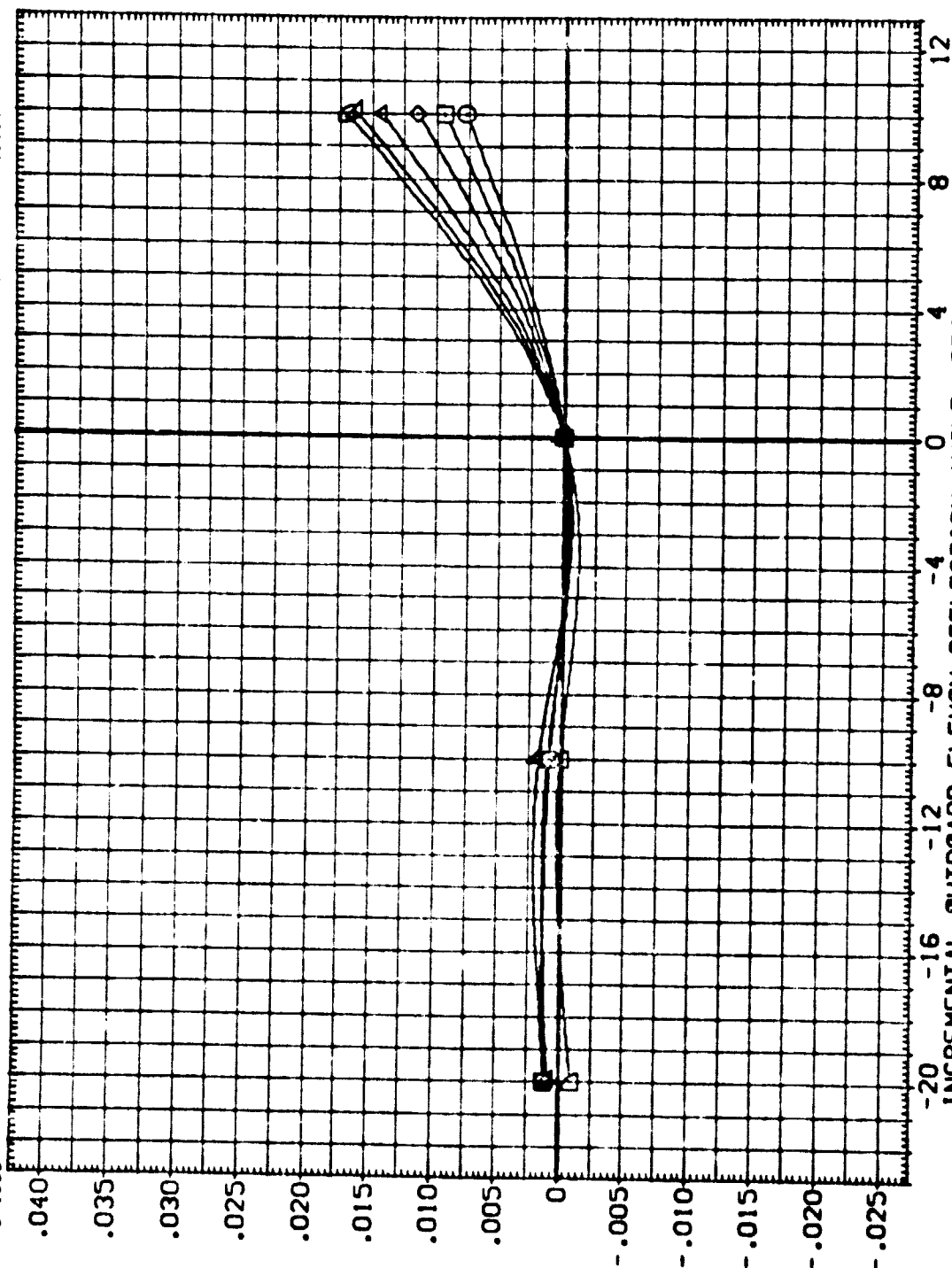


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW038)

Symbol	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLE-LO	SREF	REFERENCE INFORMATION
□	29.000		8.000 BETA	.000	.000	-10.000	2690.0000	SQ.FT.
◇	31.000	SPUDRK	55.000 RUDDER	.000	DTW038	10.000	474.9100	IN.
△	33.000	REVL	3.500	.000	DTW001		926.6800	IN.
▽	35.000						1076.6200	IN.
◇	37.000						0.000	IN.
△	39.000						375.0000	IN.
▽							2480	IN.
							SCALE	.0150

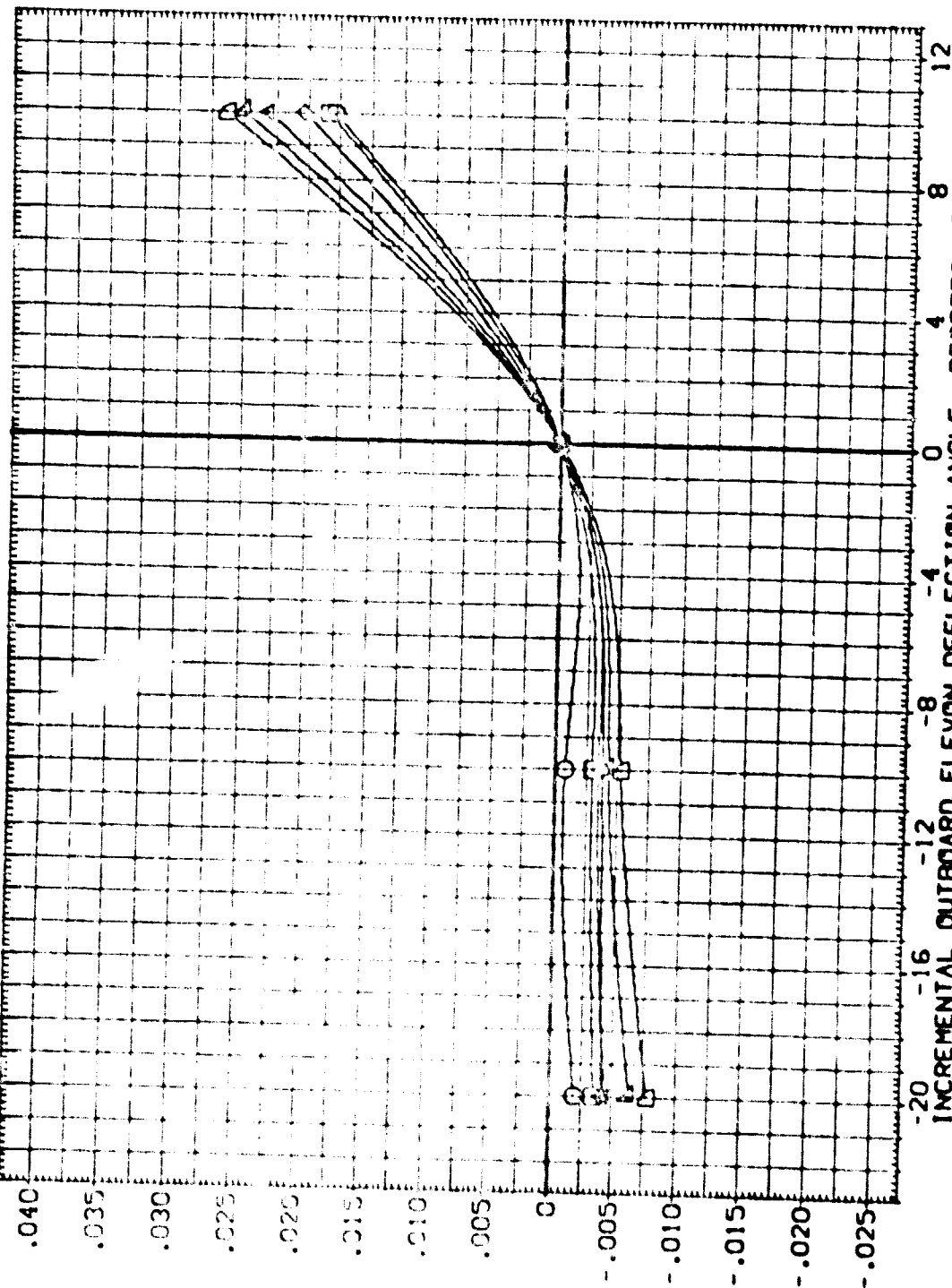


FIG. 14 INCREMENTAL EFFECTS OF OUTBOARD ONLY ELEVON DEFLECTIONS



REFERENCE INFORMATION  
 SREF 2690.0000 50. FT.  
 LREF 474.8100 IN.  
 BREF 906.8800 IN.  
 XREF 1076.6900 IN.  
 YREF 0.0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

BOFLAP -11.700  
 -1.000  
 16.300  
 RVL  
 5.330  
 3.530  
 3.530

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CIV012) DAY8 B26 C9 E43 F8 H16 N28 R5 V8 VII6  
 (CIV001) DAY8 B26 C9 E43 F8 H16 N28 R5 V8 VII6  
 (CIV013) DAY8 B26 C9 E43 F8 H16 N28 R5 V8 VII6

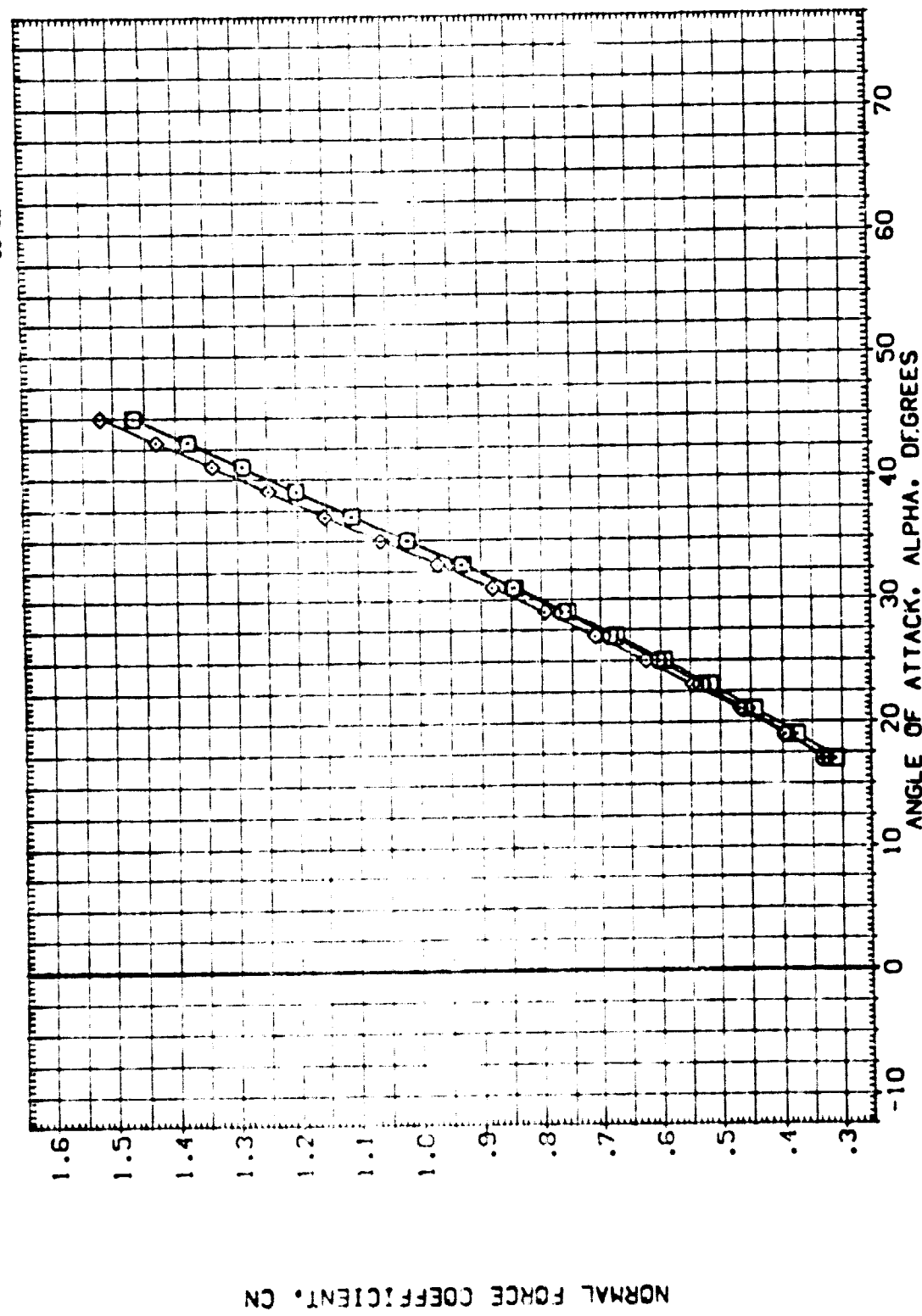


FIG. 15 800Y FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

DATA SET SYMBOL      CONFIGURATION DESCRIPTION

(C1W012)      0A79 826 C9 E43 F8 M16 N28 R5 V8 V116

(C1W001)      0A79 826 C9 E43 F8 M16 N28 R5 V8 V116

(C1W013)      0A79 826 C9 E43 F8 M16 N28 R5 V8 V116

BOFLAP      RVAL

-11.700      3.530

16.300      3.530

REFERENCE INFORMATION

SREF      2630.0000      50.FT.

LREF      474.8100      IN.

BREF      936.6800      IN.

XPRP      1076.0000      IN. X0

YPRP      0.0000      IN. Y0

ZPRP      375.0000      IN. Z0

SCALE      .0150

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C. G.) CLMPWD

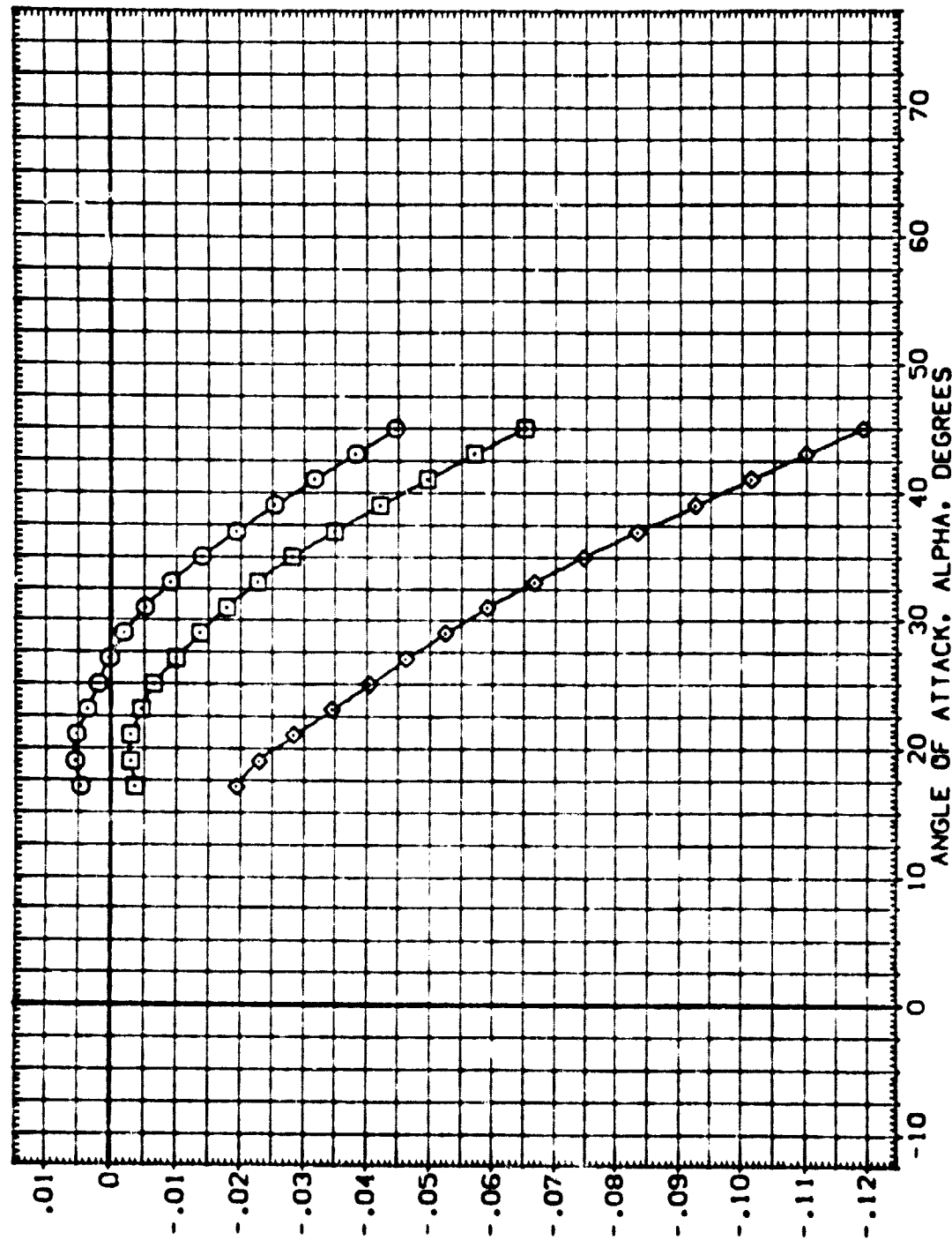


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    BOFLAP    RN/L

(CIV012)    0A79 B26 C9 E43 F8 M16 N28 RS V8 V116    -11.700    3.530

(CIV001)    0A79 B26 C9 E43 F8 M16 N28 RS V8 V116    .000    3.530

(CIV013)    0A79 B26 C9 E43 F8 M16 N28 RS V8 V116    16.300    3.530

REFERENCE INFORMATION

SREF    2690.0000    50.FT.

LREF    474.8100    IN.

BREF    936.6800    IN.

XREF    1076.6800    IN.X0

YREF    .0000    IN.Y0

ZREF    375.0000    IN.Z0

SCALE    .0150

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH (C.F. 6.0) CLMATT

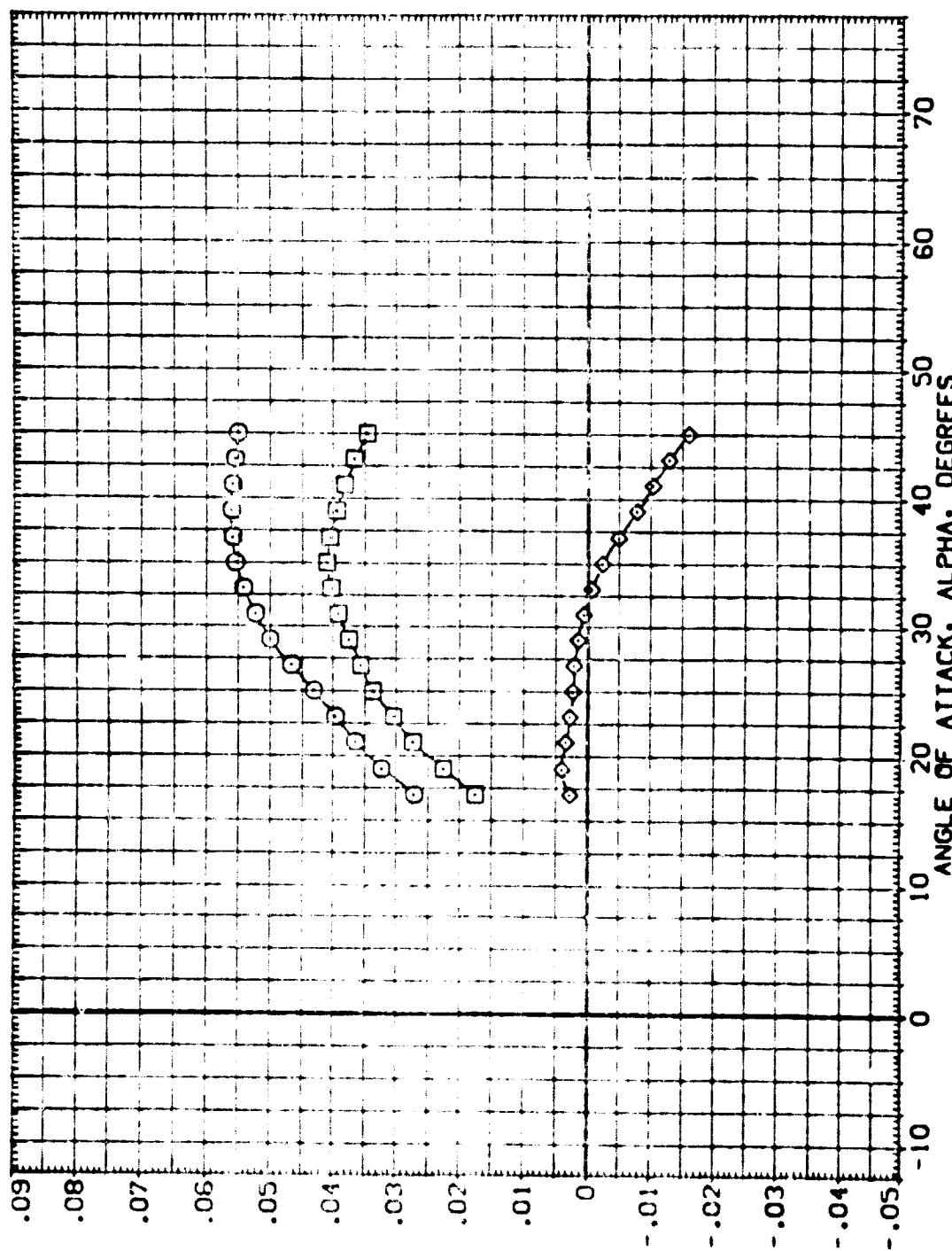
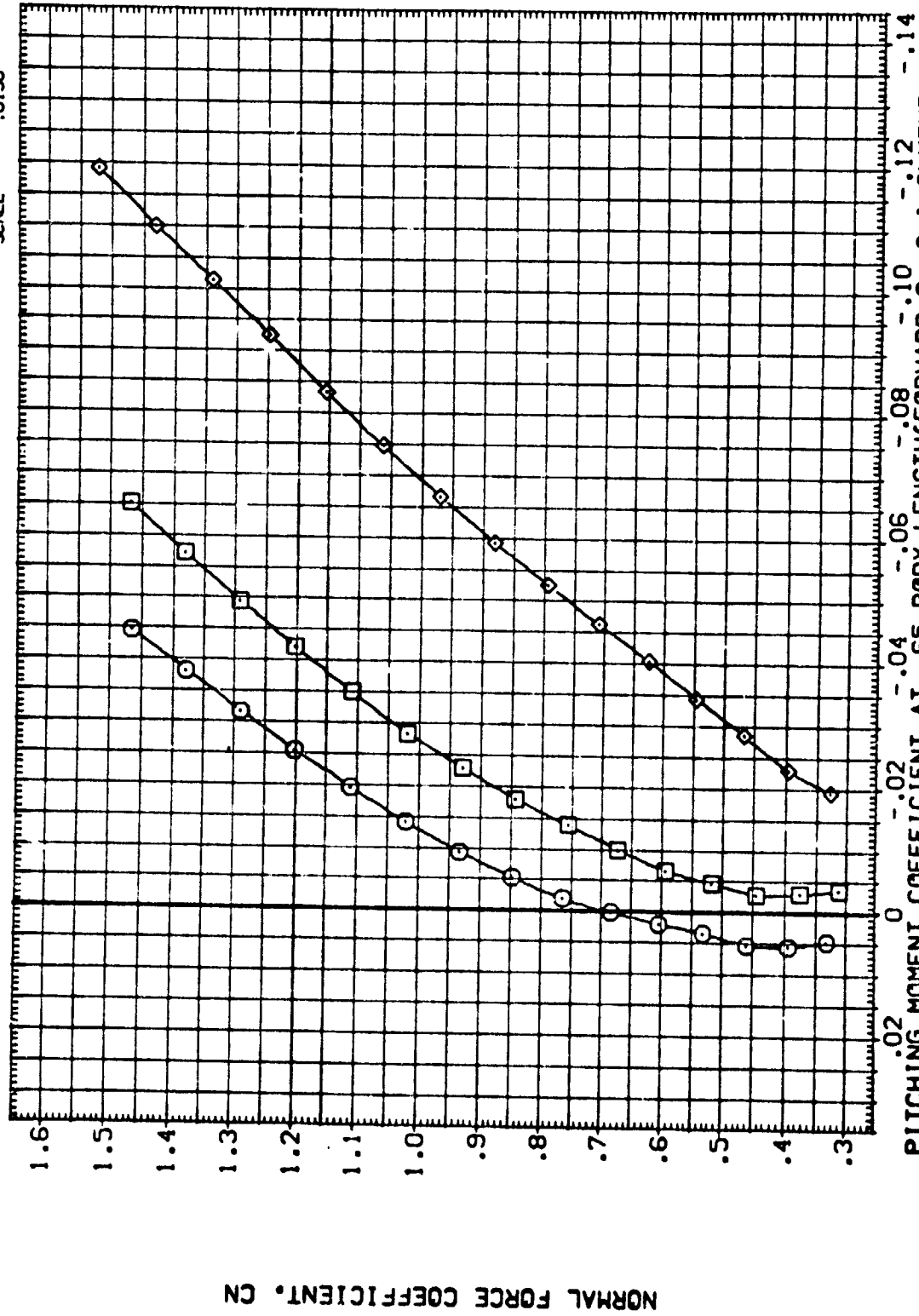


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BOFLAP	RV/L	REFERENCE INFORMATION
(CTV012)	0A79 R26 C9 E43 F8 M16 N28 RS V8 V116	-11.700	3.530	SREF 2690.0000 50.FT.
(CTV001)	0A79 R26 C9 E43 F8 M16 N28 RS V8 V116	.000	3.530	LREF 474.8100 IN.
(CTV013)	0A79 R26 C9 E43 F8 M16 N28 RS V8 V116	16.300	3.530	BREF 936.6800 IN.
				XTRP 1076.6800 IN.X0
				YTRP .0000 IN.Y0
				ZTRP 375.0000 IN.Z0
				SCALE .0150





DATA SET SYMBL	CONFIGURATION DESCRIPTION	90° FLAP	R/V/L	REFERENCE INFORMATION
(CTV012)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	-11.700	3.530	SREF 2690.0000
(CTV001)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	0.000	3.530	LREF 474.8100
(CTV013)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	16.300	3.530	BREF 936.6800
				XREF 1076.6800
				YREF 375.0000
				ZREF 375.0000
				SCALE .0150

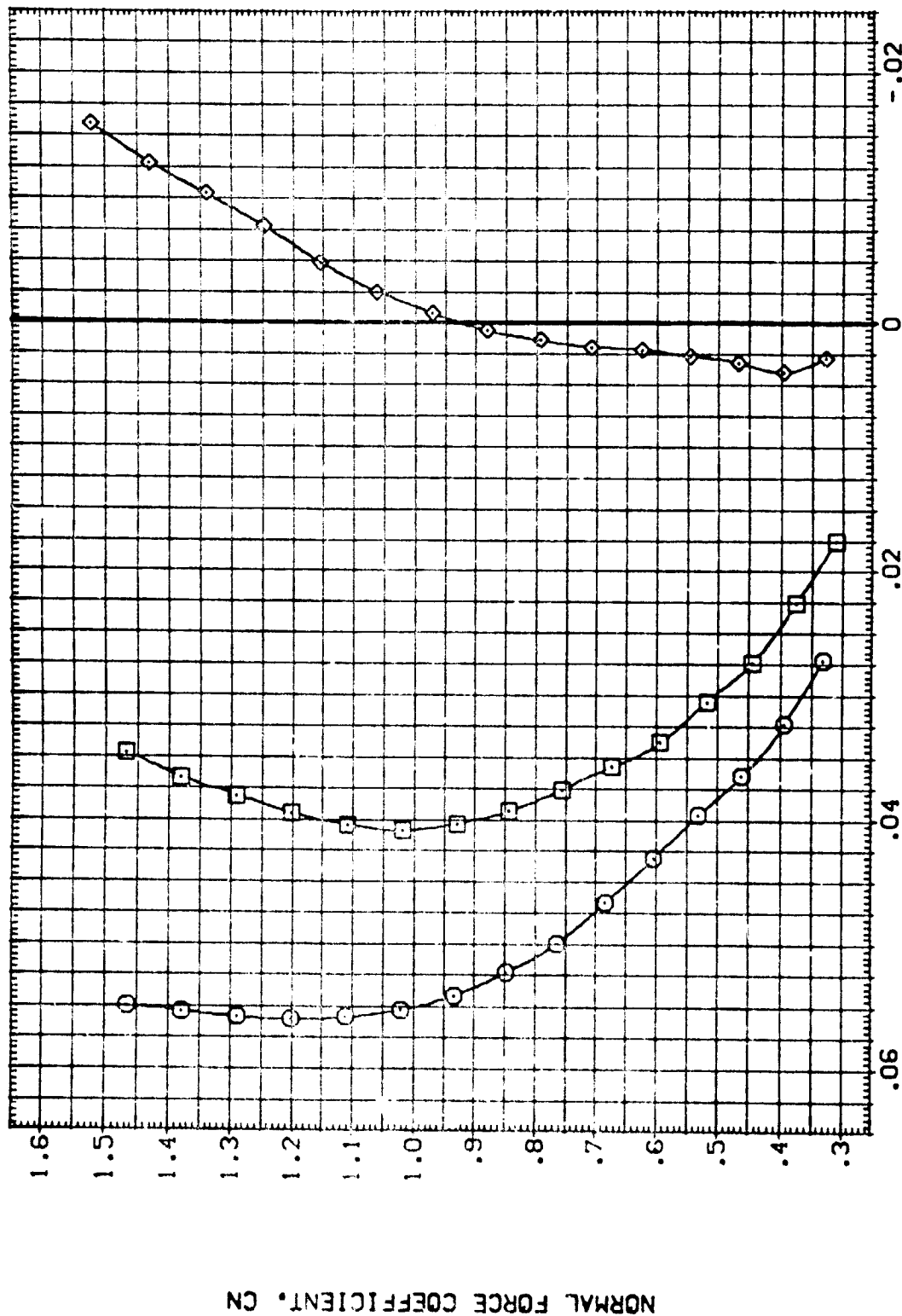


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

REFERENCE INFORMATION  
 SREF 2690.0000 50. FT.  
 LREF 474.6100 IN.  
 BREF 936.6800 IN.  
 XREF 1076.6800 IN.  
 YREF 375.0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

BDFLAP RVL  
 -11.700 3.530  
 .000 3.530  
 16.300 3.530

DATA SET SYMBOL CONFIGURATION: DESCRIPTION  
 (CTV012) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116  
 (CTV001) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116  
 (CTV013) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116

CENTER OF PRESSURE LOCATION AS A FRACTION OF BODY LENGTH, XCP/L

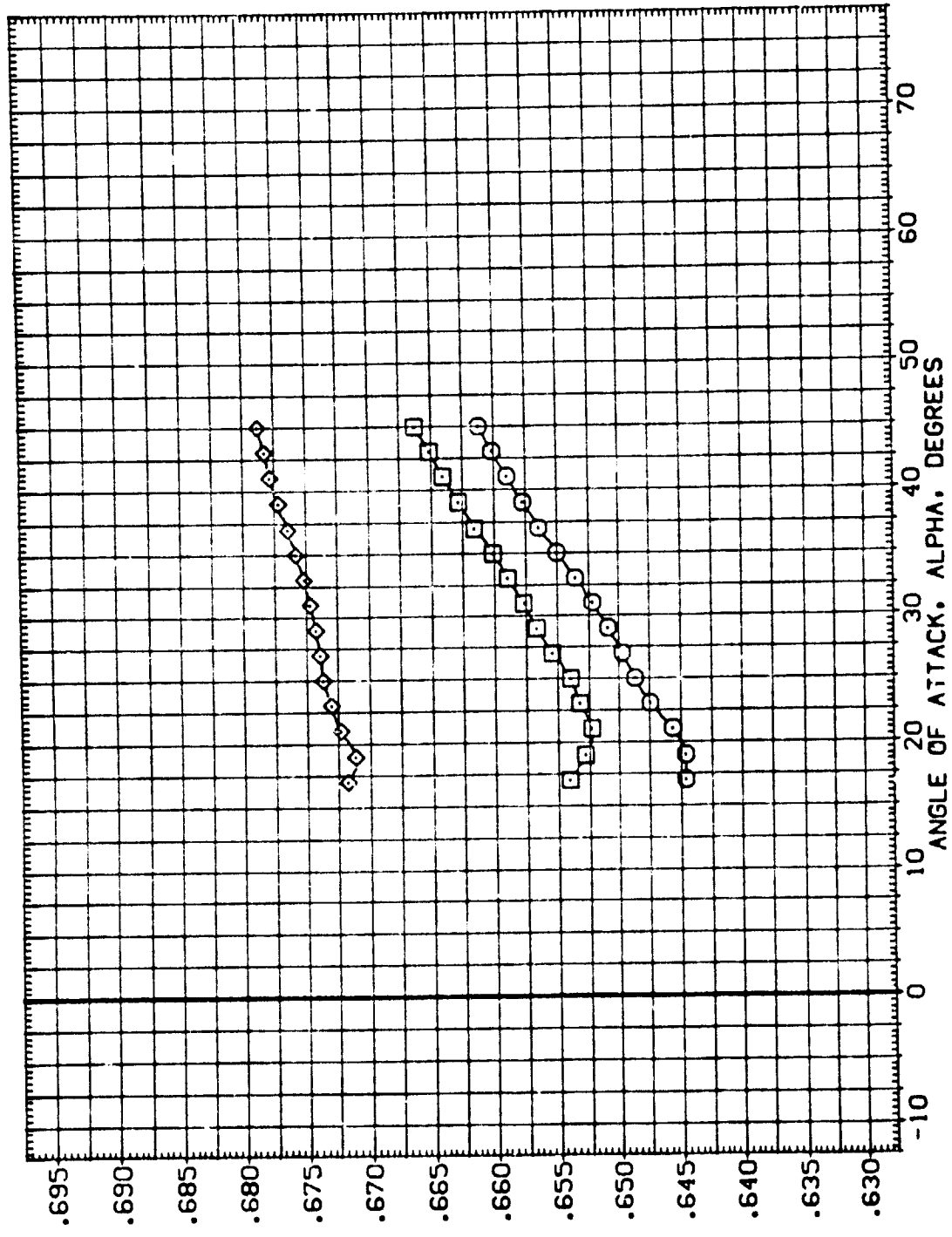


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (C1V012)    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116  
 (C1V001)    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116  
 (C1V013)    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

ROFLAP    RV/L  
 -11.700    3.530  
 .000    3.530  
 16.300    3.530

REFERENCE INFORMATION  
 SREF    2690.0000    SQ.FT.  
 LREF    474.8100    IN.  
 BREF    936.6800    IN.  
 XREF    1076.6800    IN.X0  
 YREF    .0000    IN.Y0  
 ZREF    375.0000    IN.Z0  
 SCALE    .0150

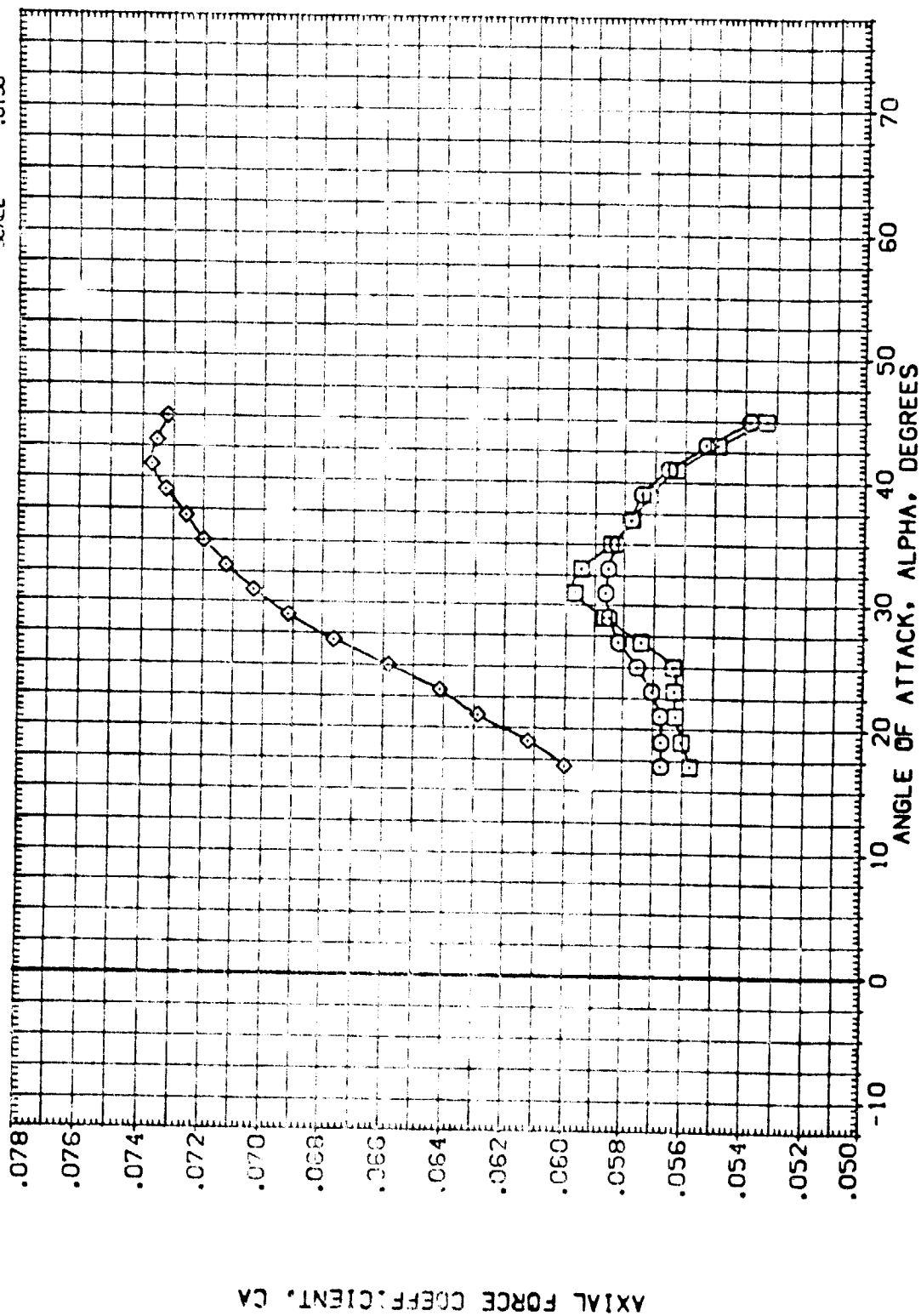


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    BOFLAP    RVL

(CTV012)    0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (CTV001)    0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (CTV013)    0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116

REFERENCE INFORMATION

SREF	2630.0000	50. FT.
LREF	474.8100	IN.
BREF	936.8400	IN. X3
XMRP	1076.5800	IN. Y0
YMRP	.0000	IN. Z0
ZMRP	375.0000	IN. Z0
SCALE	.0150	

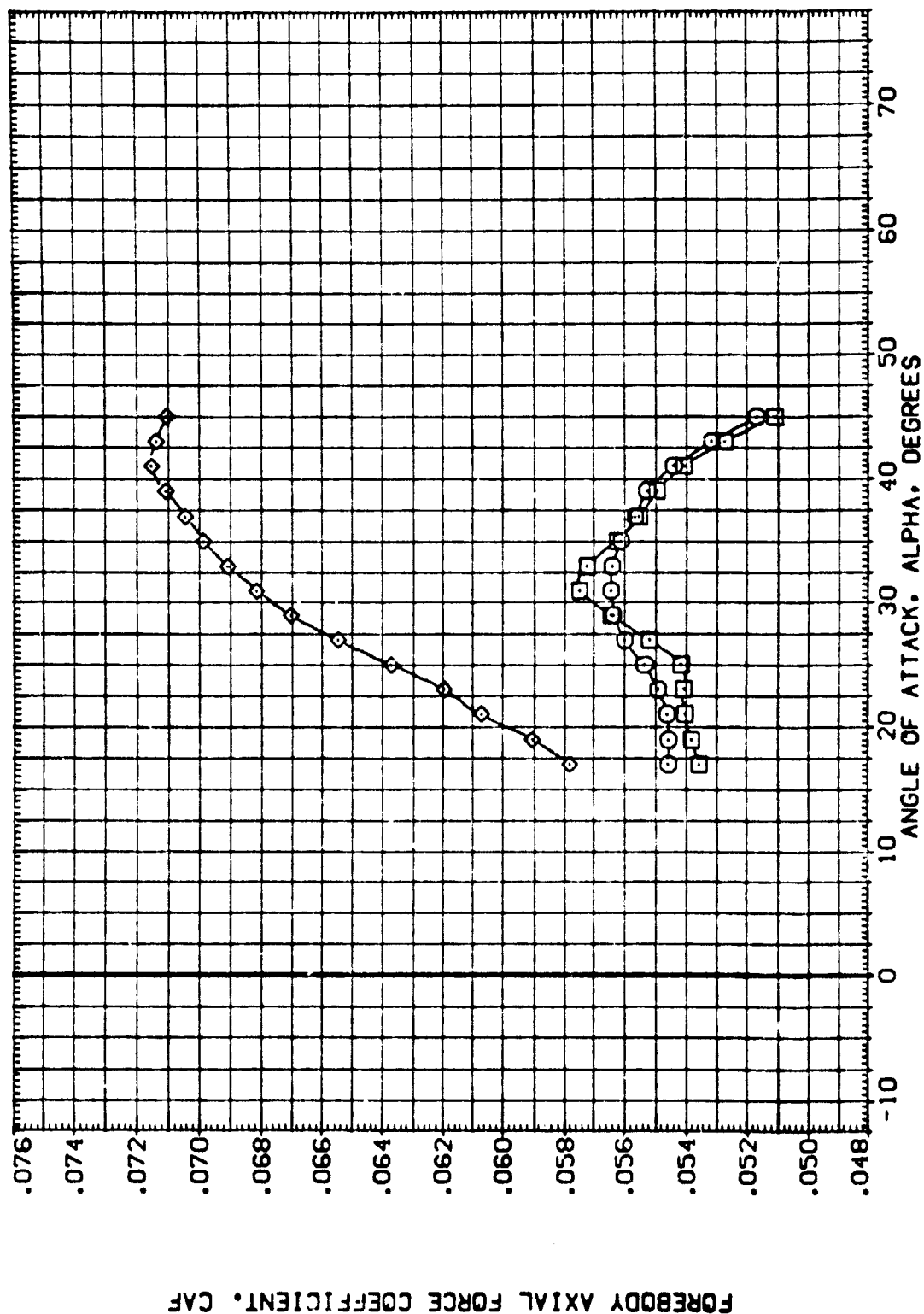


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(C1V012)    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

(C1V011)    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

(C1V013)    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

BOFLAP    RVAL

-11.700    3.530

16.300    3.530

REFERENCE INFORMATION

SREF    2690.0000    50.FT. IN.

LREF    474.8100    IN.

BREF    936.6800    IN.

XMRP    1076.6800    IN. X0

YMRP    .0000    IN. Y0

ZMRP    375.0000    IN. Z0

SCALE    .0150

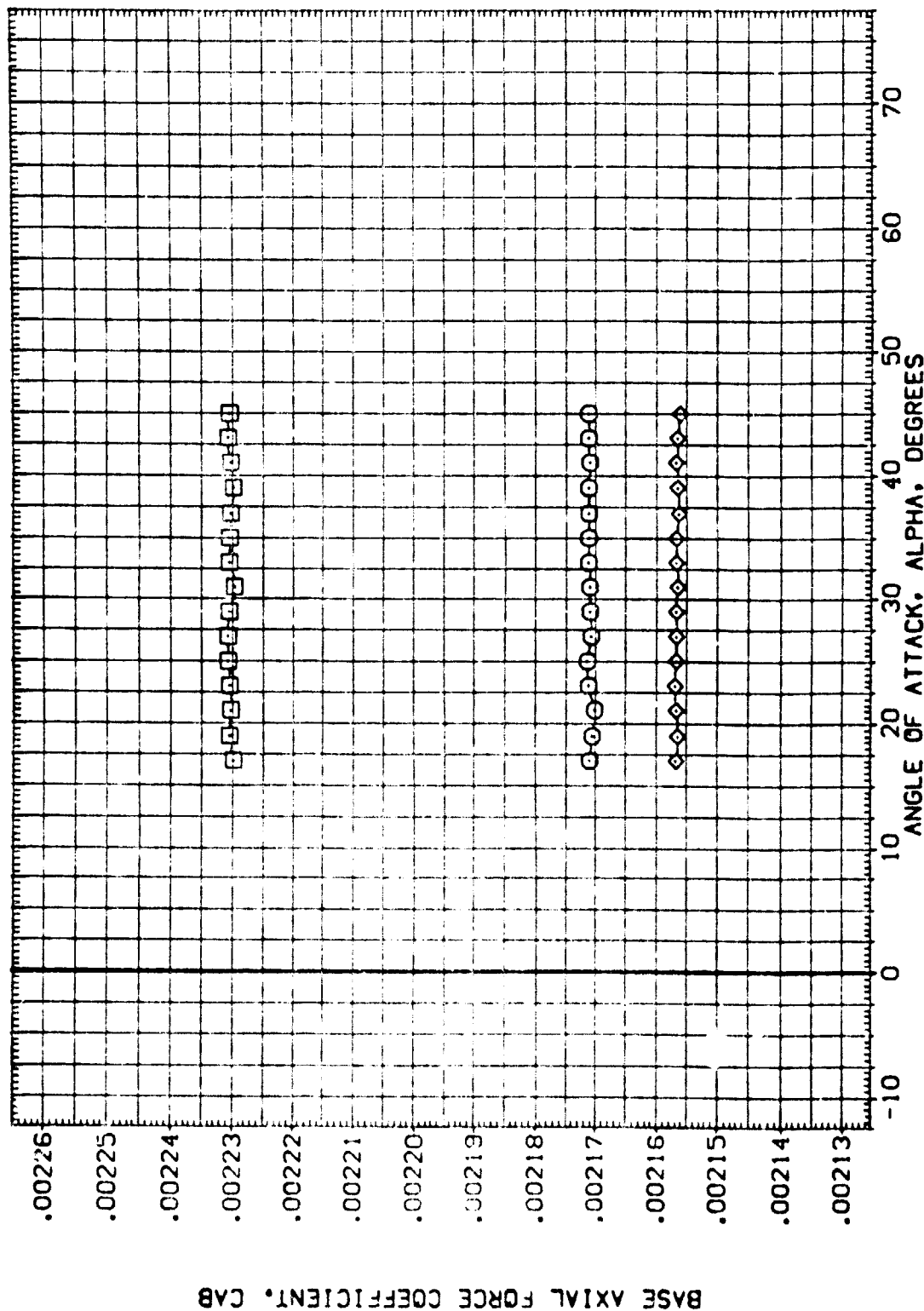


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

REFERENCE INFORMATION

SREF	2690.0000	50. FT.
LREF	474.8100	IN.
BREF	936.6300	IN.
XPRP	1076.6800	IN.
YPRP	.0000	IN.
ZPRP	375.0000	IN.
SCALE	.0150	

BDFLAP RVL

-11.700	3.530
.000	3.530
16.300	3.530

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(C1W012)	0A79 B26 C9 E43 F8 M16 N28 P5 V6 V116
(C1W001)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116
(C1W013)	0A79 B26 C9 E43 F8 M16 N28 P5 V8 V116

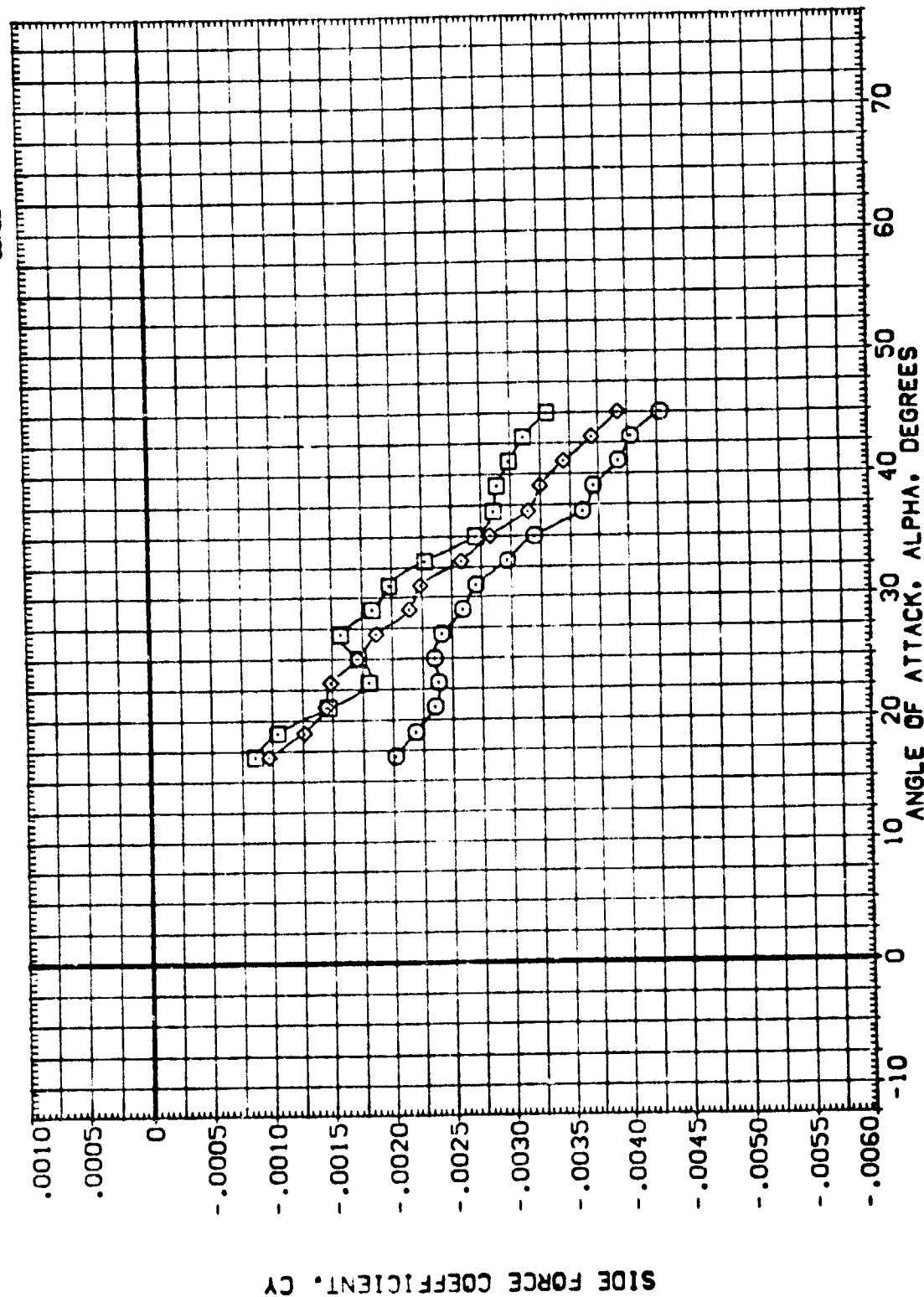


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(C1W012) = 8.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

[ATW012]    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

[ATW011]    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

[ATW013]    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

BOFLAP    RV/L

-11.700    3.530

16.300    3.530

REFERENCE INFORMATION

SREF    2690.0300    50. FT.

UREF    474.8100    IN.

DREF    936.6900    IN.

XPRP    1076.6900    IN.

YPRP    .0000    IN.

ZPRP    375.0000    IN.

SCALE    .0150

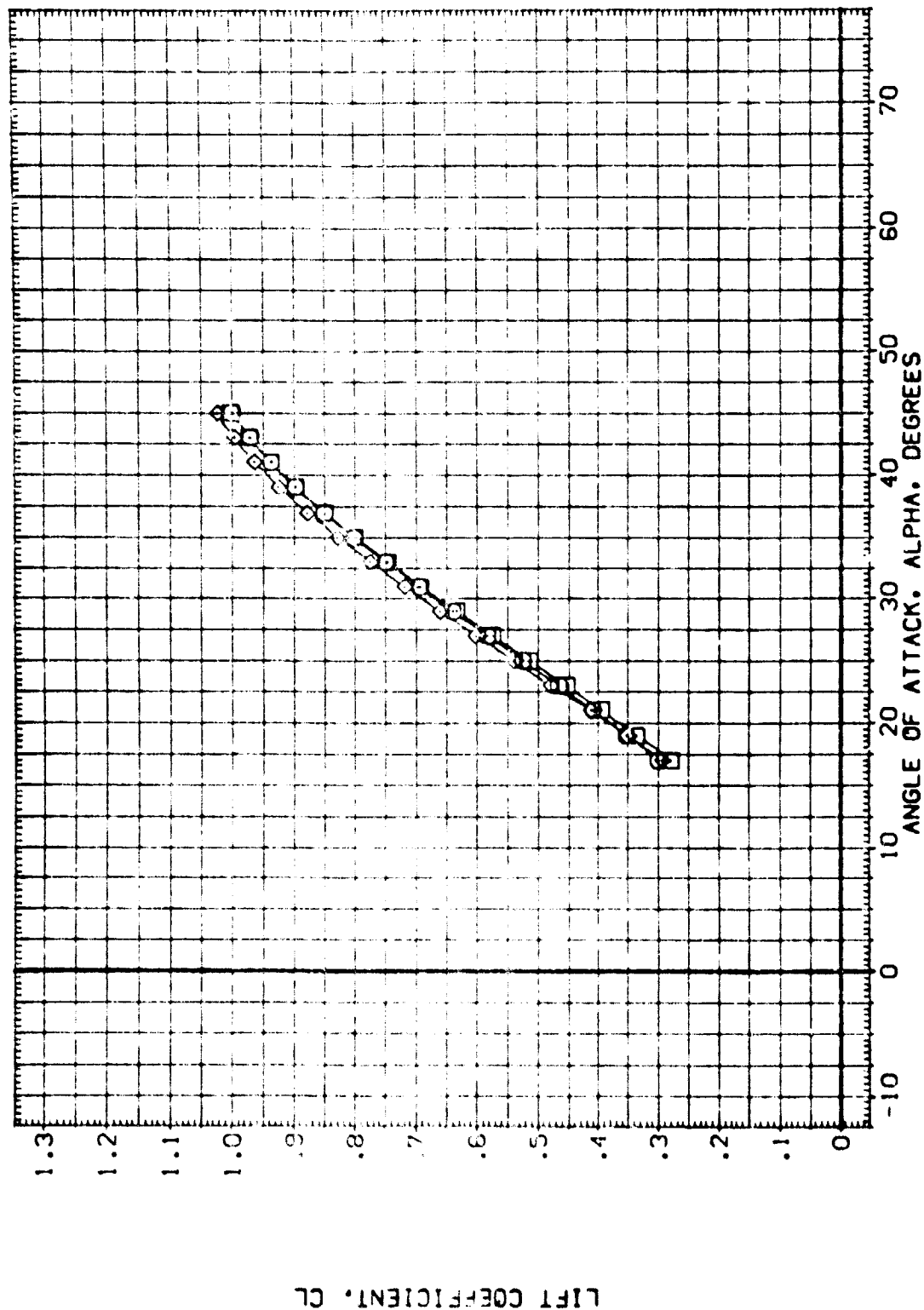


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

REFERENCE INFORMATION

SREF	2690.0000	50.FT.
LREF	474.8100	IN.
BREF	936.6300	IN.
XTFRP	1076.6300	IN.X3
YMRP	.0000	IN.Y3
ZMRP	375.0000	IN.Z3
SCALE	.0150	

BOFLAP RVNL

-11.700	3.530
.000	3.530
16.300	3.530

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ATW012)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116
(ATW001)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116
(ATW013)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116

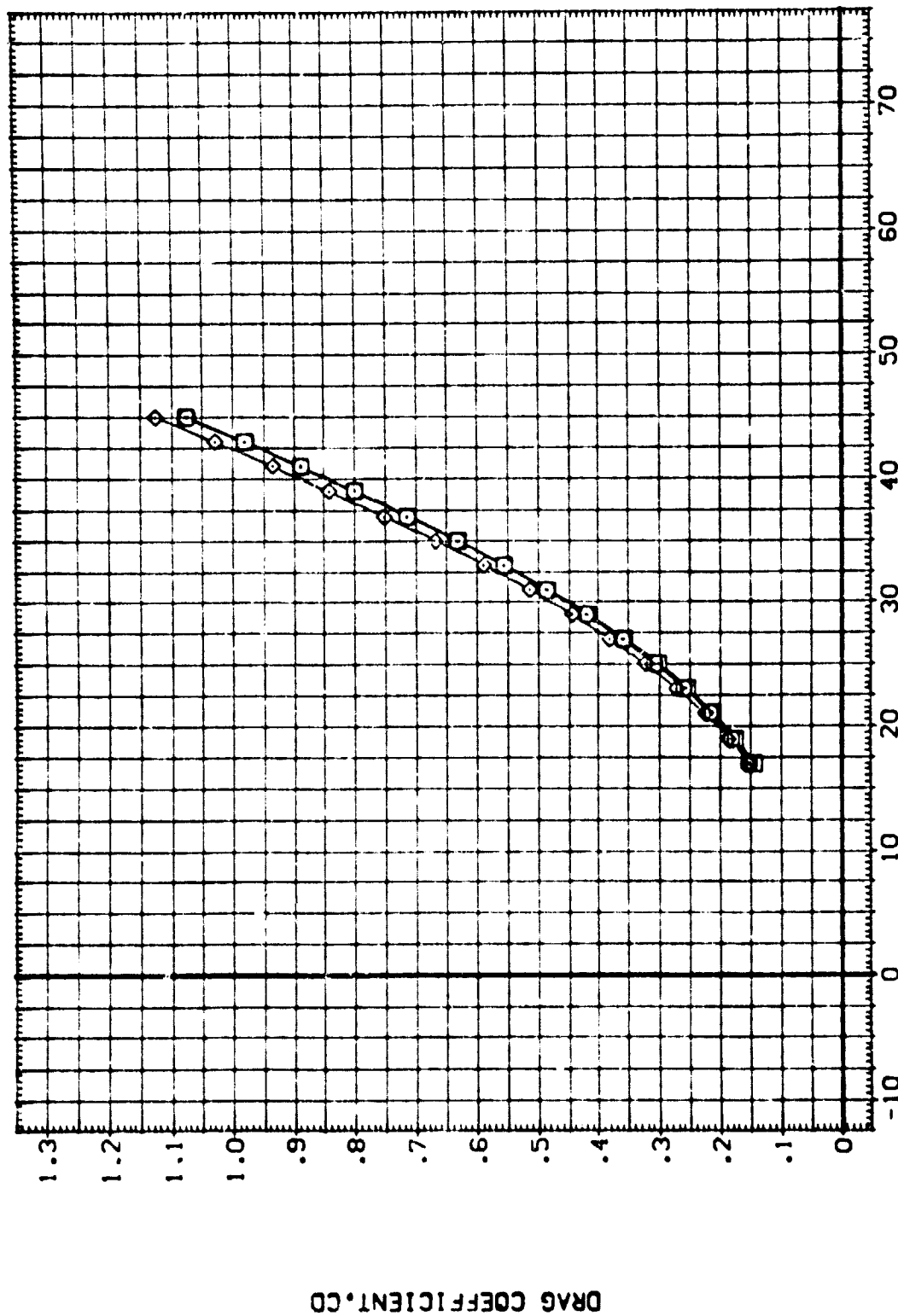


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00



REFERENCE INFORMATION

SREF	2690.0000	SO.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XMRP	1076.6800	IN.
YMRP	0.0000	IN.
ZMRP	375.0000	IN.
SCALE	.0150	

BOFLAP RVL

-11.700	3.530
.000	3.530
16.300	3.530

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DA79 B26 C9 E43 F8 H16 N28 R5 V8 V116
(ATW012)
(ATW001)
DA79 B26 C9 E43 F8 H16 N28 R5 V8 V116
(ATW013)

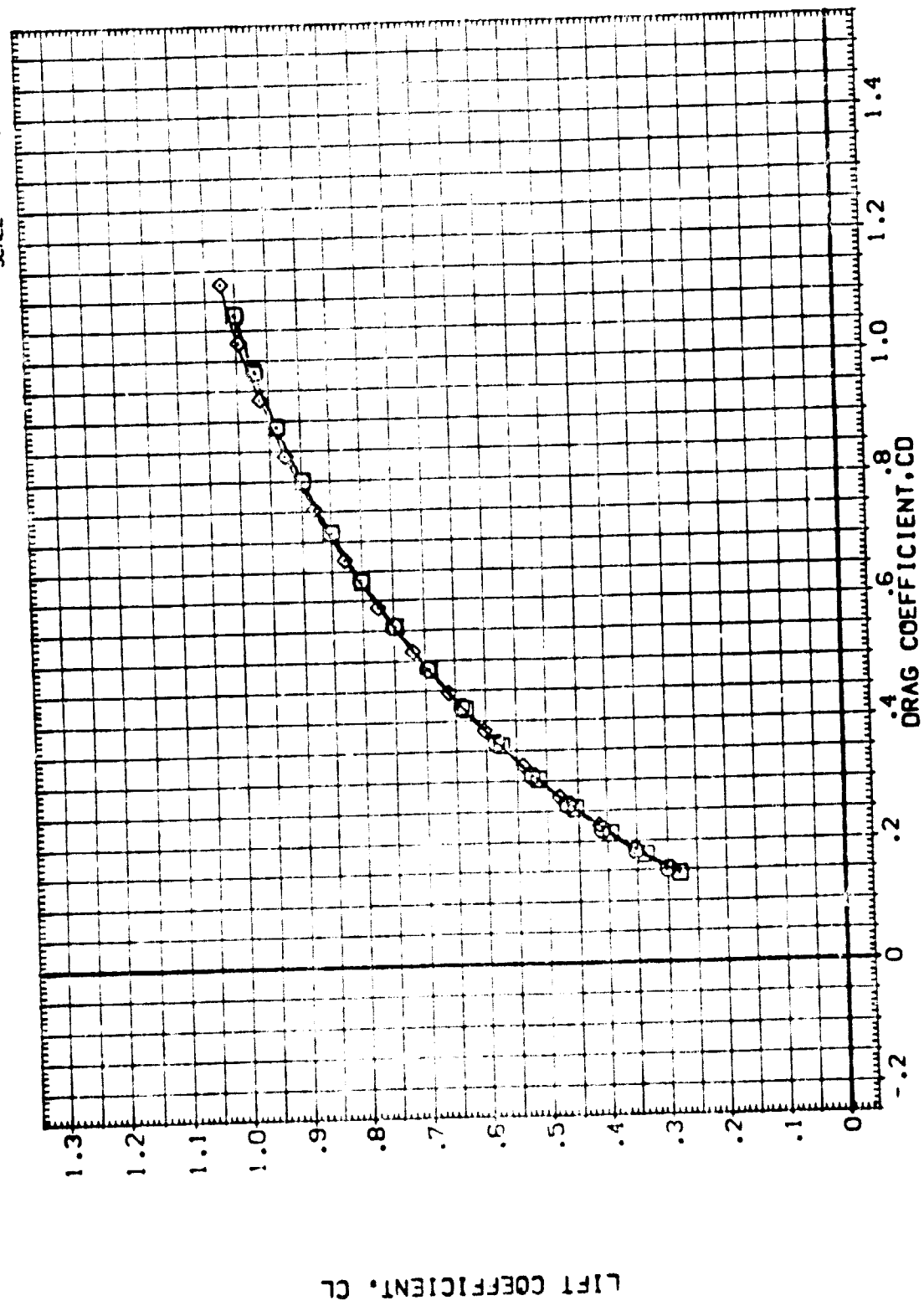


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

REFERENCE INFORMATION  
 SPEC 2690.0000 50.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.00  
 XTRP 1076.6800 IN.00  
 YTRP 375.0000 IN.20  
 ZTRP .0150  
 SCALE

DOFLAP RVL  
 -11.700 3.530  
 16.300 3.530

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (A1W012) 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116  
 (A1W001) 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116  
 (A1W013) 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

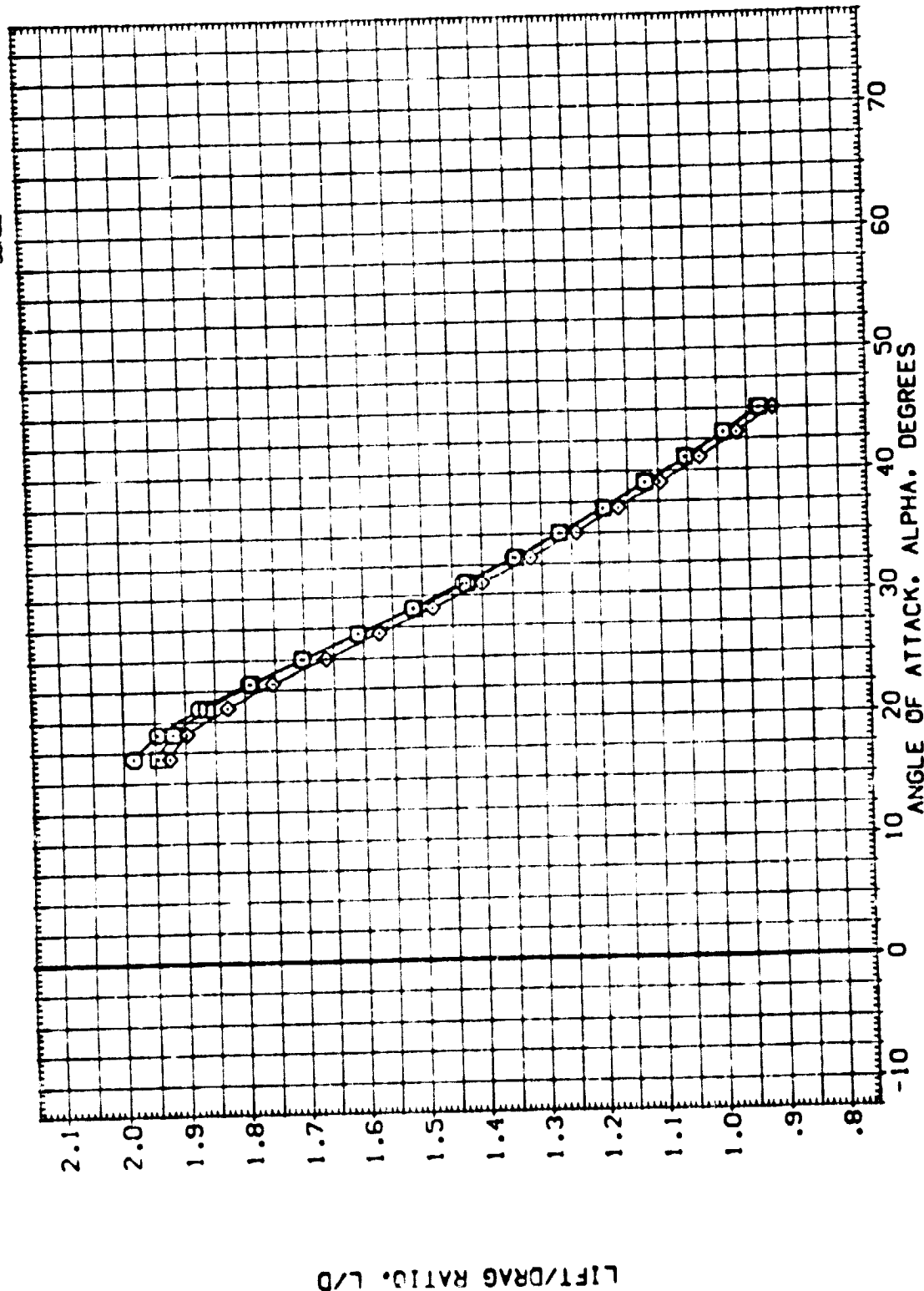


FIG. 15 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 3.53)

(A)MACH = 8.00

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	17.000	HACH	2.000	BREF	243.0000
BETA	18.000	SPDRK	55.000	REF	174.8100
RUDER	21.000	RVL	3.530	GRF	936.6800
	23.000			XREF	1076.6800
	25.000			YREF	.0000
	27.000			ZREF	375.0000
				SCALE	.0150

INCREMENTAL NORMAL FORCE COEFFICIENT, CLCN

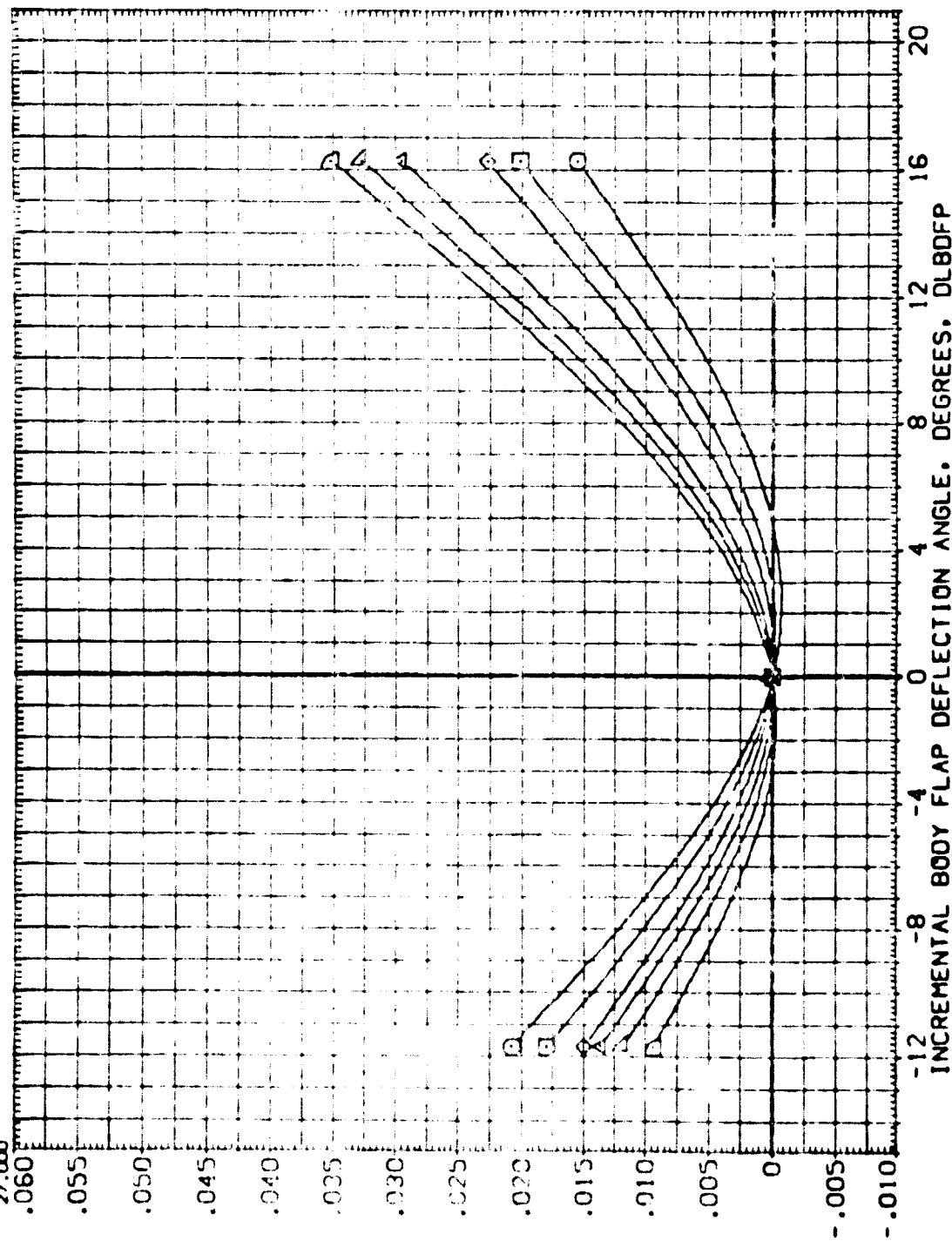


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

(DTW012)

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
□  
◇  
◇  
◇  
◇

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000  
39.000

MACH  
SP0BPK  
RNVL

PARAMETRIC VALUES  
BETA  
RUDDER  
3.530

DATA SOURCE  
DLBOFP  
-11.700  
16.300

DATASET  
DTW012  
DTW013

DLBOFP  
.000  
DTW001

REFERENCE INFORMATION  
SREF 2630.0000 SQ.FT.  
LREF 474.8100 IN.  
BREF 936.6800 IN.  
XREF 1076.6800 IN.  
YREF 375.0000 IN.  
ZREF 0.0150 IN.  
SCALE

INCREMENTAL NORMAL FORCE COEFFICIENT, DLTCN

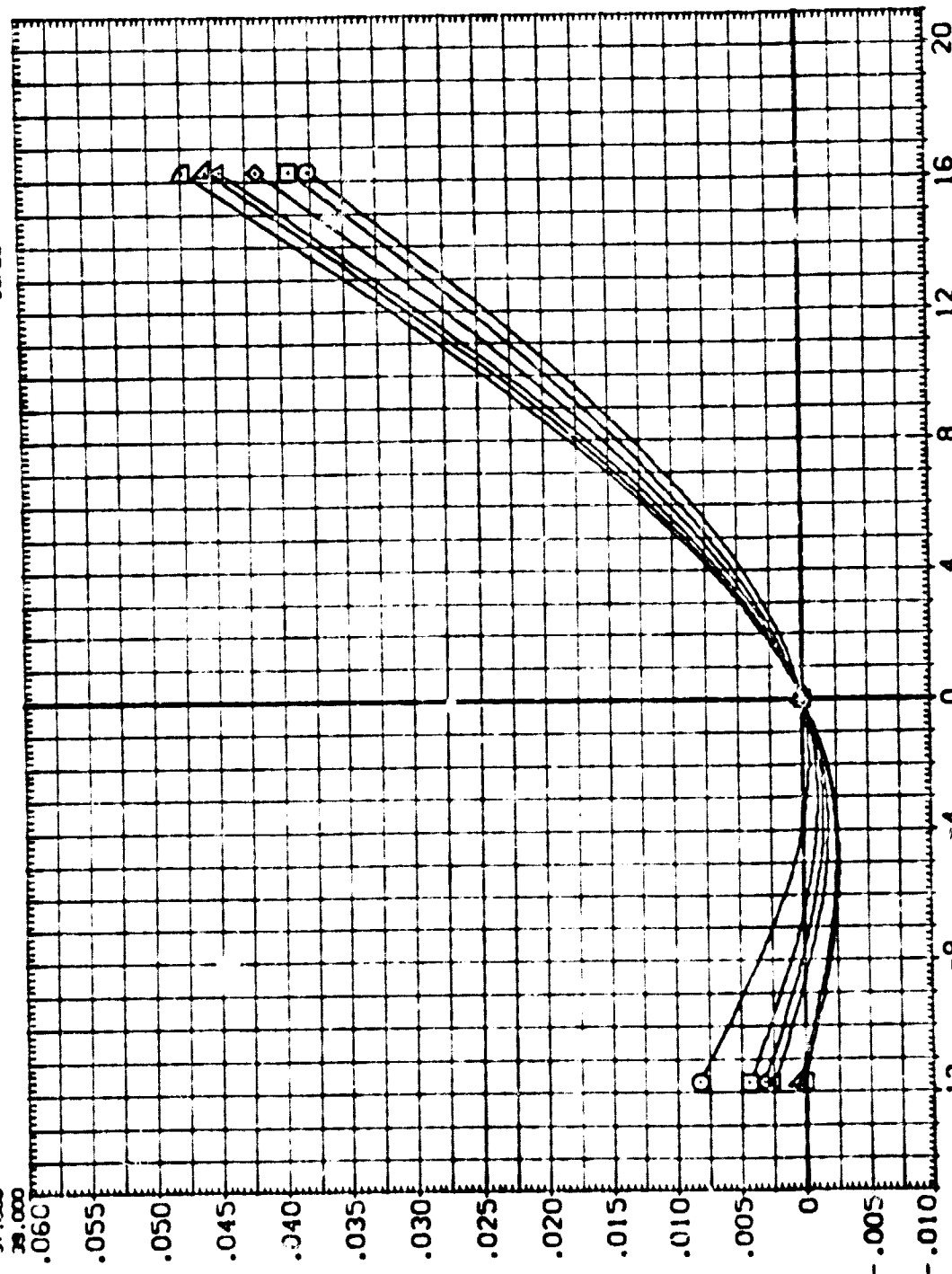


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

0A79 B26 C9 E43 F8 M16 N28 R5 V9 W116 (DTW012)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLBOFP	SREF	REF. INFORMATION
○	41.000		8.000	BETA	.000	DTW012	DTW012	2630.0000
□	43.000	SPOBRK	55.000	RUDER	.000	DTW013	DTW013	474.8100
◇	45.000	RV/L	3.530					936.6800
								1076.6800
								373.0000
								373.0000
								SCALE .0150

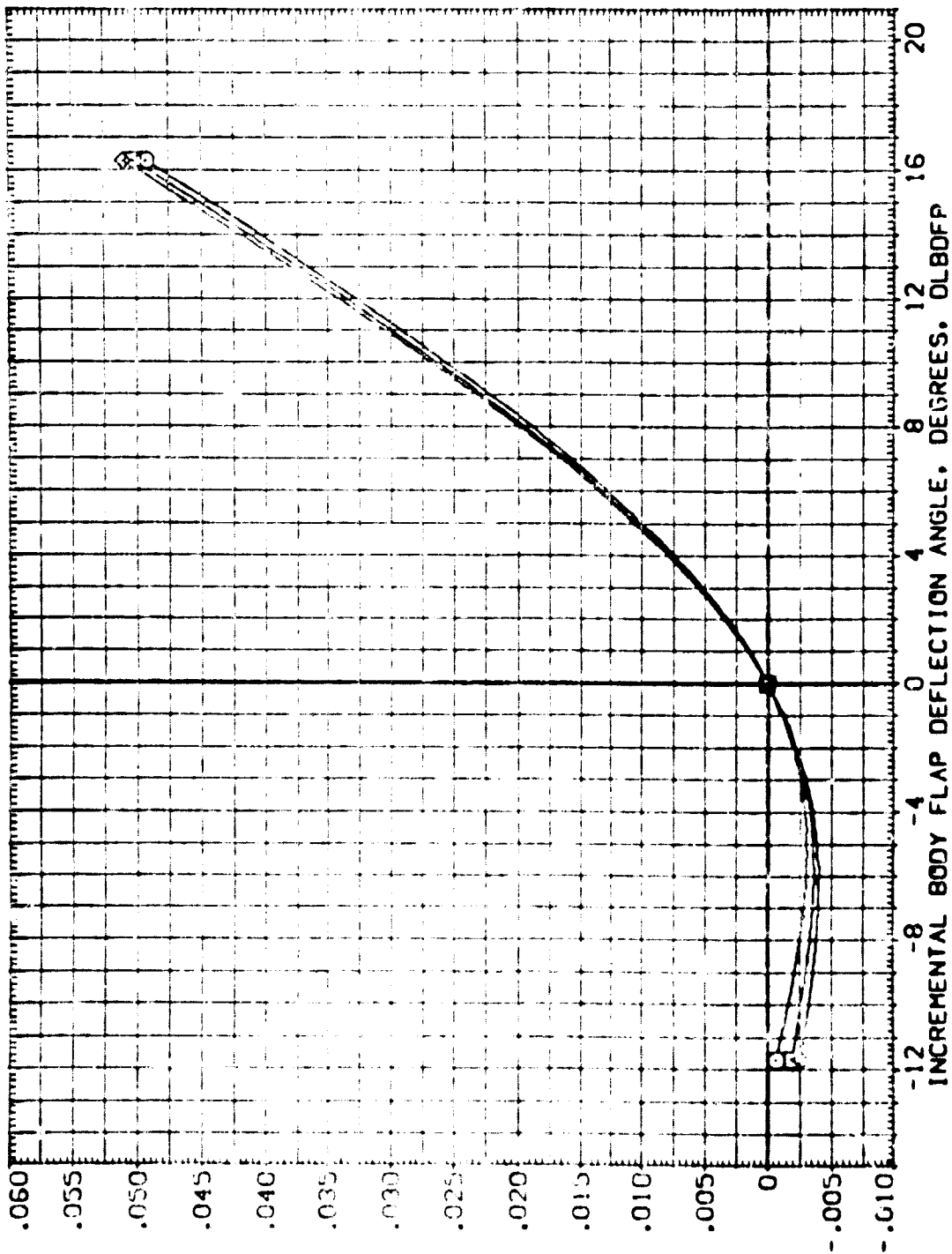


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

(DTW012)

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
SQ.FT. 2690.0000  
IN. 474.8100  
IN. 936.6800  
IN. 1075.6800  
IN. 375.0000  
IN. 375.0000  
SCALE .0150

DATA SOURCE  
DLBOFF .000  
DTW001

.000 DATASET  
DTW012  
DTW013

PARAMETRIC VALUES  
BETA  
RUDDER  
3.530

MACH  
SPOBKK  
RV/L

ALPH.  
17.000  
19.000  
21.000  
23.000  
25.000  
27.000

SYMBOL  
O  
◇  
△  
▽  
□  
◇  
△  
▽  
□

INCREMENTAL PITCHING MOMENT COEFFICIENT (FWD. C.G.) DLTCMF

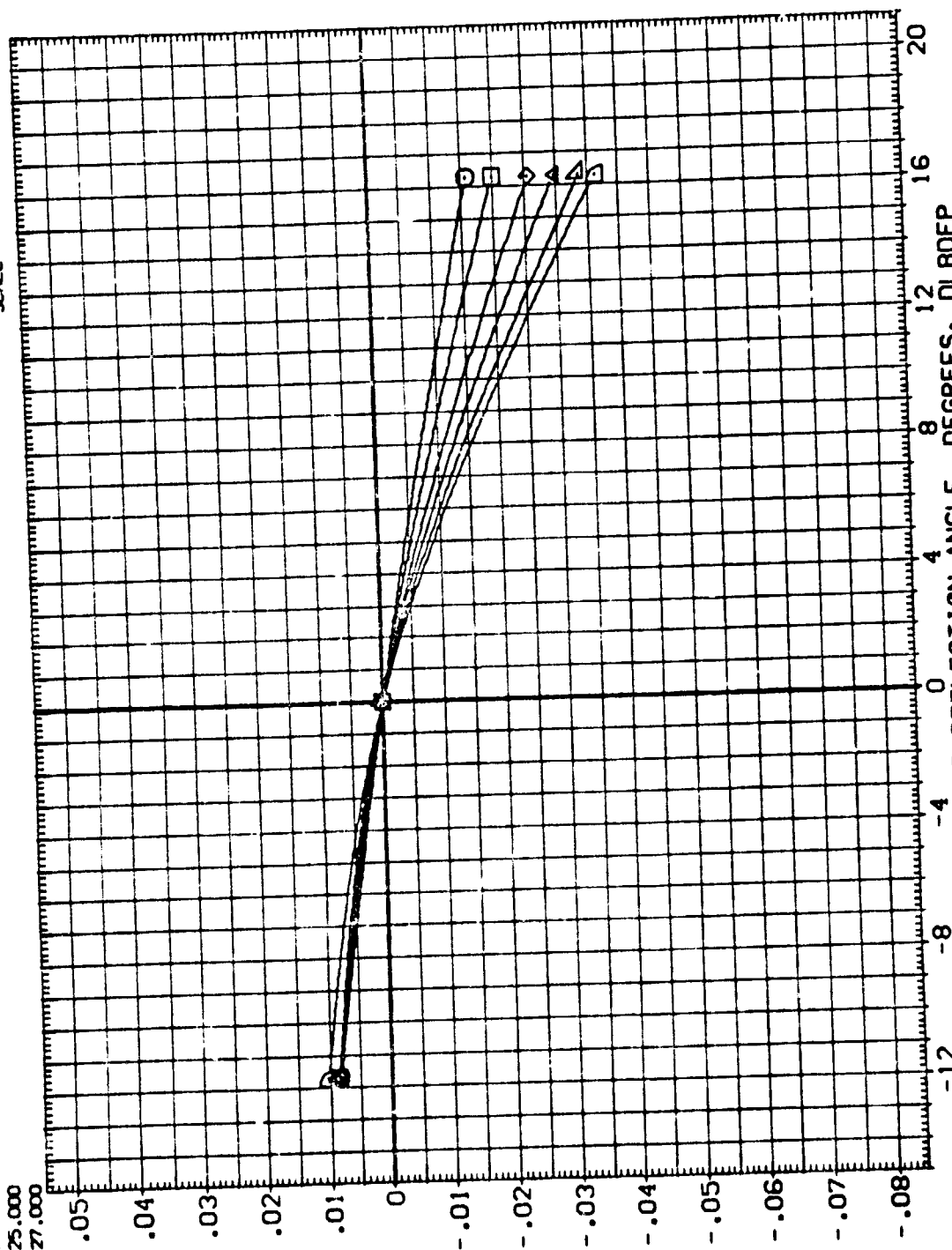


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

QA79 B26 C9 F43 F8 M16 N28 R5 V8 W116

SYMBOL

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000  
39.000

WACH  
SPIDERK  
RNL

PARAMETRIC VALUES	
3.000	BETA
55.000	RUDDER
3.530	

DATA SET	DLBOFP	DATA SET	DLBOFP
11.700		11.700	
16.300		16.300	

DATA SET DLEDFP 0000

STEF	2690.0000	IN.	50.F1.
LREF	474.8100	IN.	
BREF	936.6800	IN.	X0
X0FP	1076.6400	IN.	Y0
Y0FP	0.0000	IN.	Z0
Z0FP	375.0000		
SCALE	.0150		

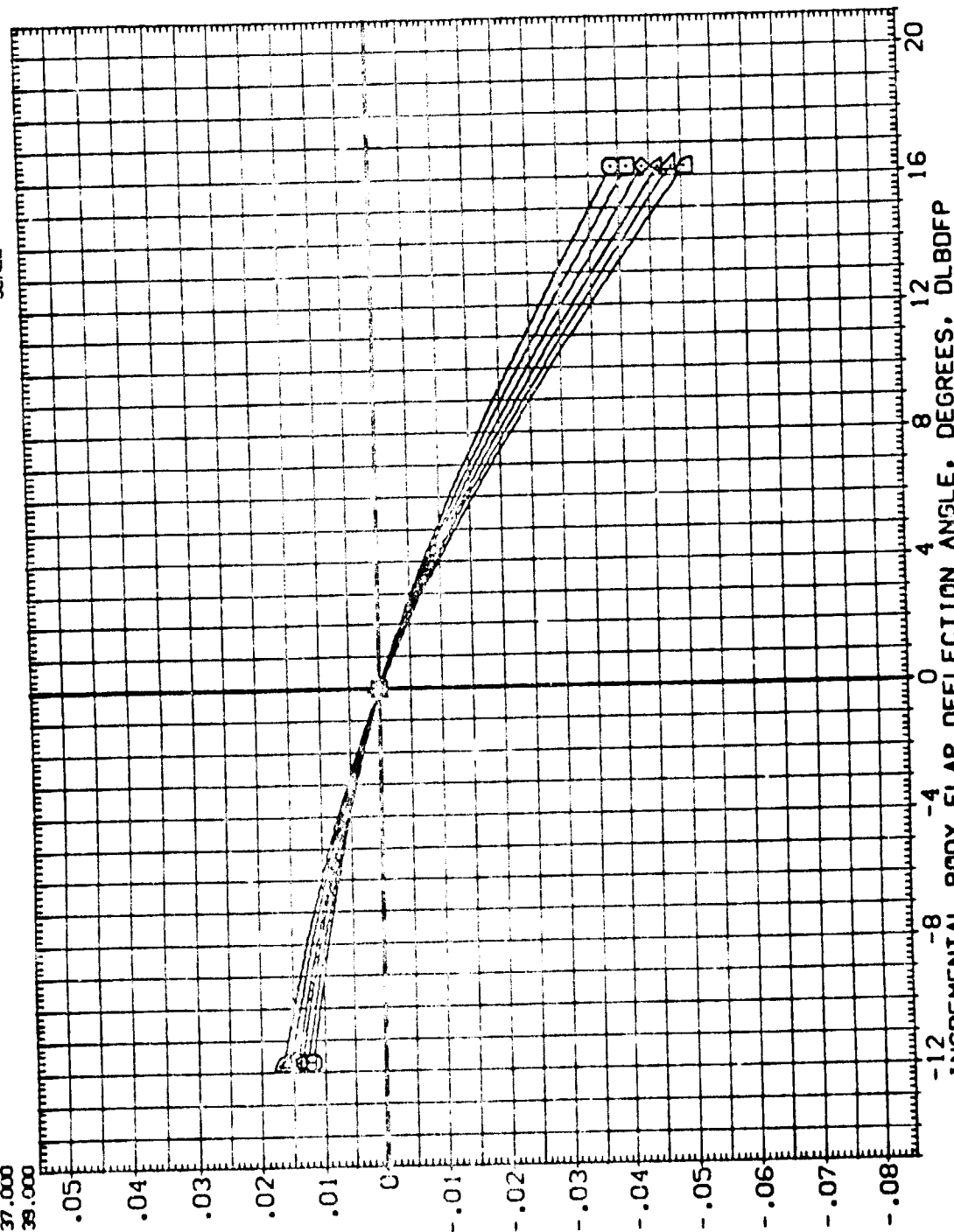


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 3.53)

(DTW012)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
◇  
□  
○

ALPHA  
41.000  
43.000  
45.000

MACH  
SPDRBK  
RV/L

PARAMETRIC VALUES  
8.000 BETA  
55.000 RUDDER  
3.530

DATA SOURCE  
DLBOFP  
-11.700  
16.300

DATASET  
DTW001

DLBOFP  
.000

SREF  
LREF  
SREF  
XTRP  
YTRP  
ZTRP

2690.0000  
474.8100  
936.6800  
1076.6800  
.0000  
375.0000

SO.FT.  
IN.  
IN.X0  
IN.Y0  
IN.Z0

SCALE  
.0150

INCREMENTAL PITCHING MOMENT COEFFICIENT (FWD. C.G.) DLTCMF

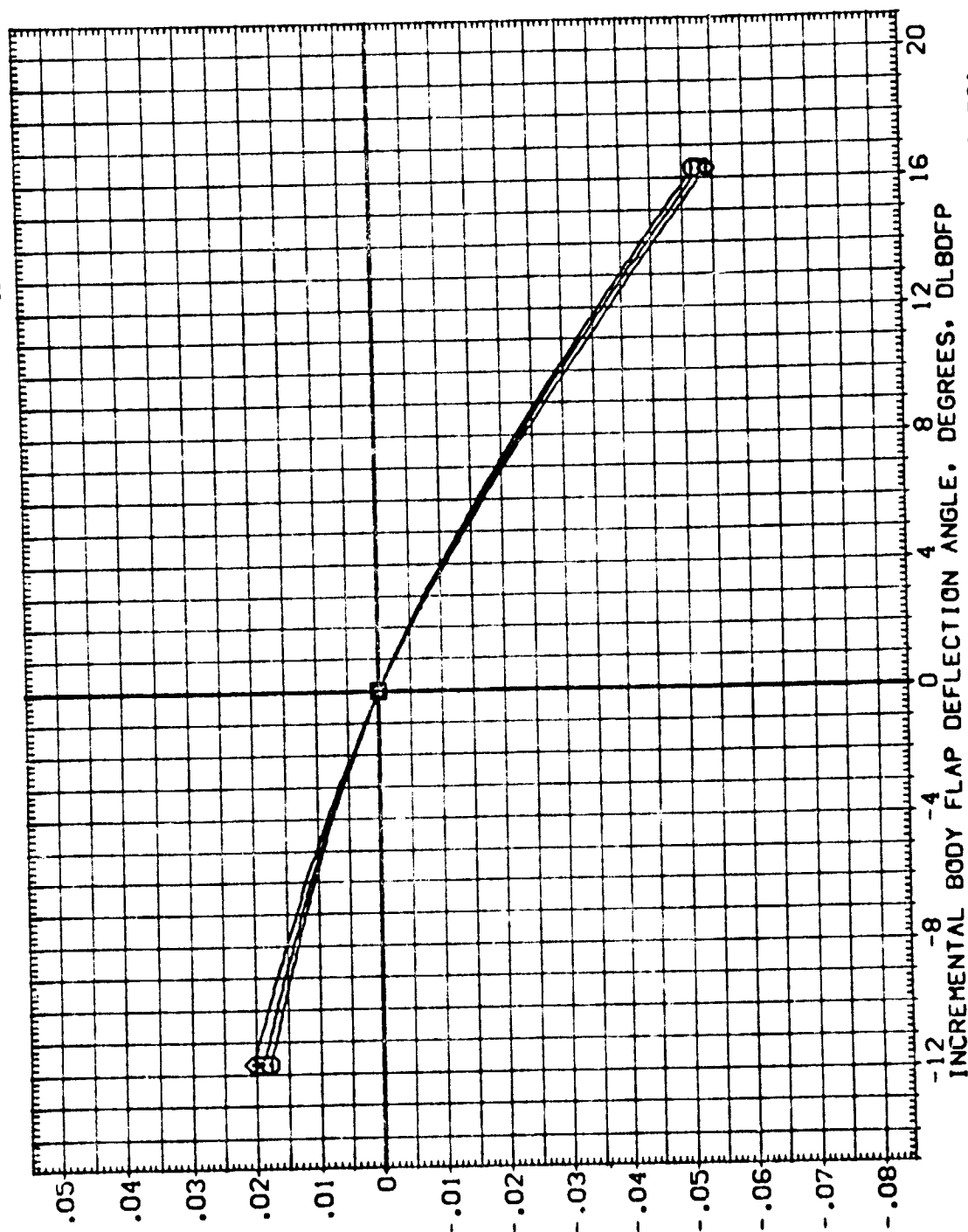


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)



0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

SYMBOL  
 □  
 ◇  
 △  
 ▽  
 ▴  
 ▾

ALPHA  
 17.000  
 19.000  
 21.000  
 23.000  
 25.000  
 27.000

MACH  
 SPDRK  
 RVL

PARAMETRIC VALUES  
 8.000 BETA  
 55.000 RUDDER  
 3.530

.000 DATASET  
 .000 DTW012  
 .000 DTW013

DATA SOURCE  
 DLBOFP  
 -11.700  
 16.300

DATASET  
 DTW001

DLBOFP  
 .000

REFERENCE INFORMATION  
 2690.0000 SQ.FT.  
 474.8100 IN.  
 936.6800 IN.X0  
 1076.6800 IN.Y0  
 .0000 IN.Z0  
 375.0000  
 ZMRP  
 SCALE .0150

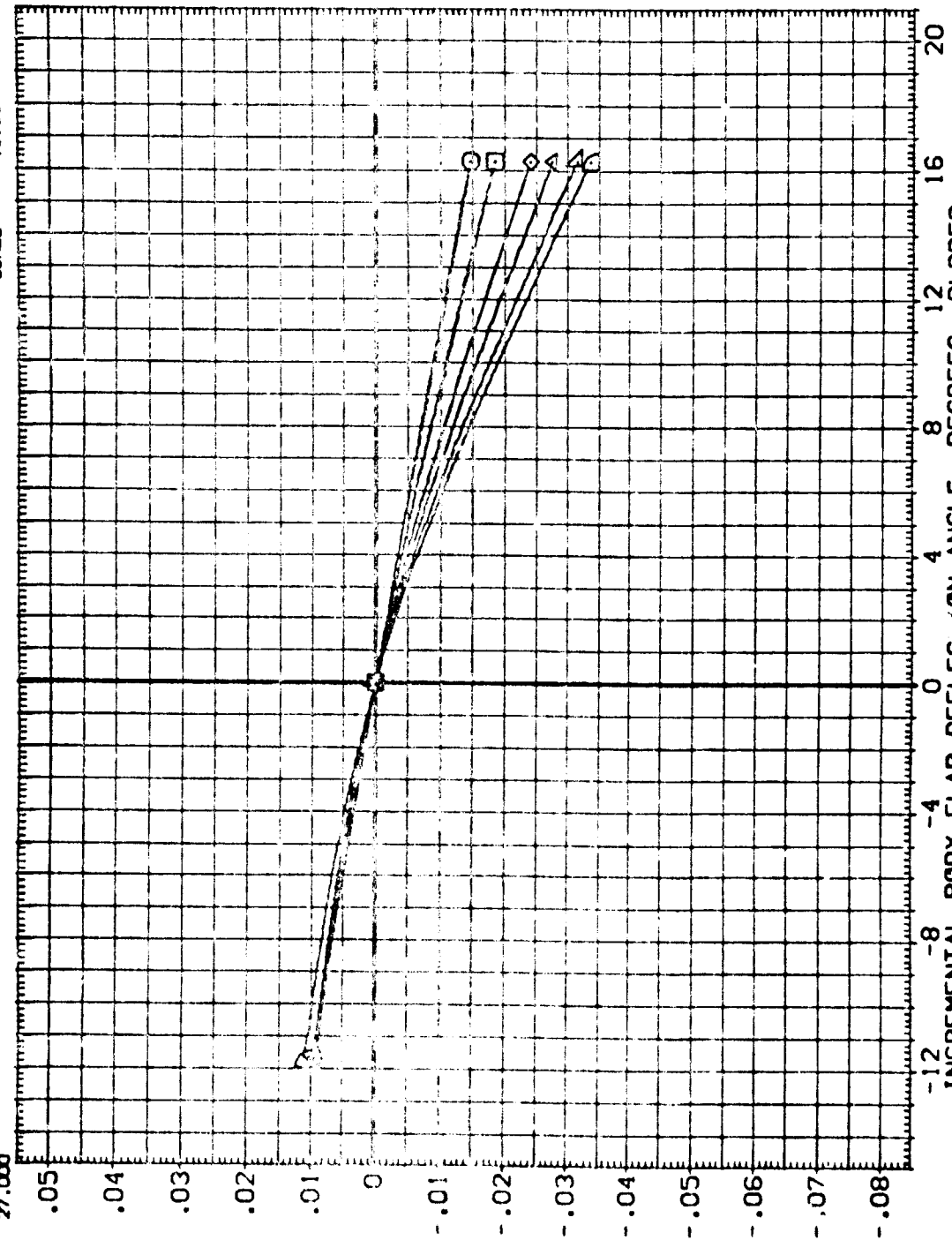


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

SYMBOL	ALPHA	MACH	SPDRK	RSVL	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
○	29.000				8.000	BETA		.000	DATASET	DLBOFP	SREF	2690.0000	SQ.FT.
□	31.000				55.000	RUDDER		.000	DTW012	DLBOFP	LBREF	474.8100	IN.
◇	33.000				3.530			.000	DTW013	DLBOFP	GRF	936.6800	IN.
△	35.000										XMRP	1076.6800	IN.X0
▽	37.000										YMRP	375.0000	IN.Y0
△	39.000										ZMRP	375.0000	IN.Z0
▽											SCALE	.0150	

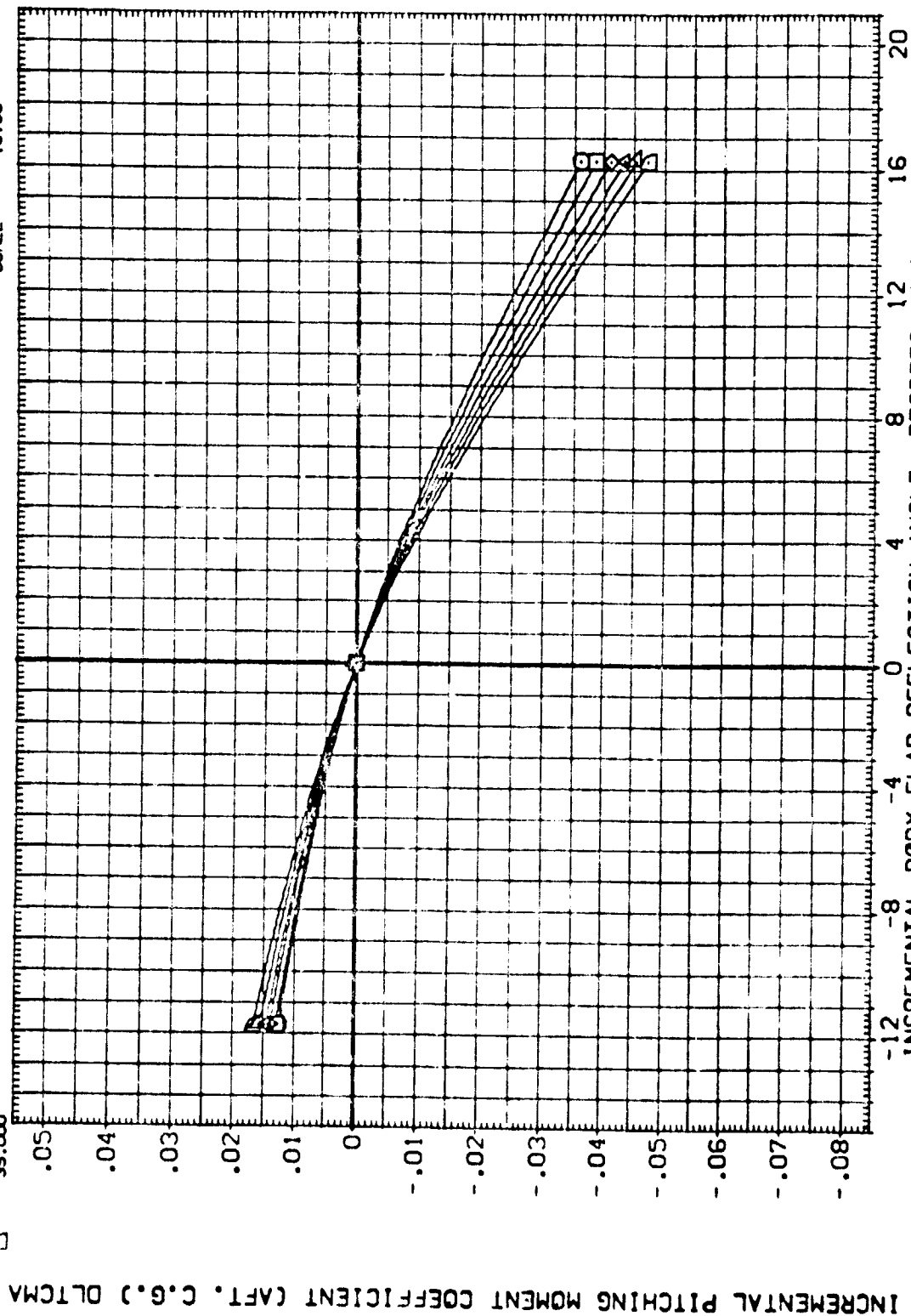


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

## Topics

ALPHA  
41.000  
43.000  
45.000

MACH  
SPOBRK  
PWL

PARAMET  
8.000  
55.000  
3.530

VALUES  
ETA  
MUDDER

88

136  
112  
113

**SOURCE**

100  
135W

**000**

REFERENCE  
2690.0  
474.8  
936.6  
1076.6

9222

REFERENCE INFORMATION	50 FT.
2690.0000	IN.
474.8100	IN.
936.6800	IN.X0
1076.6800	IN.Y0
.0000	IN.Z0
375.0000	
.0150	

0.0000  
4.8100  
6.6800  
6.6300  
1.0000  
5.0000  
.0150

P 00

100ALC  
135V1W

DATA 9  
DL8DFP  
-11.70  
16.30

**0000**

C VALUE  
BETA  
RUDDER

PA 8553

PWA  
 1.000  
 3.000  
 5.000

SYN ☐ ☐ ☐

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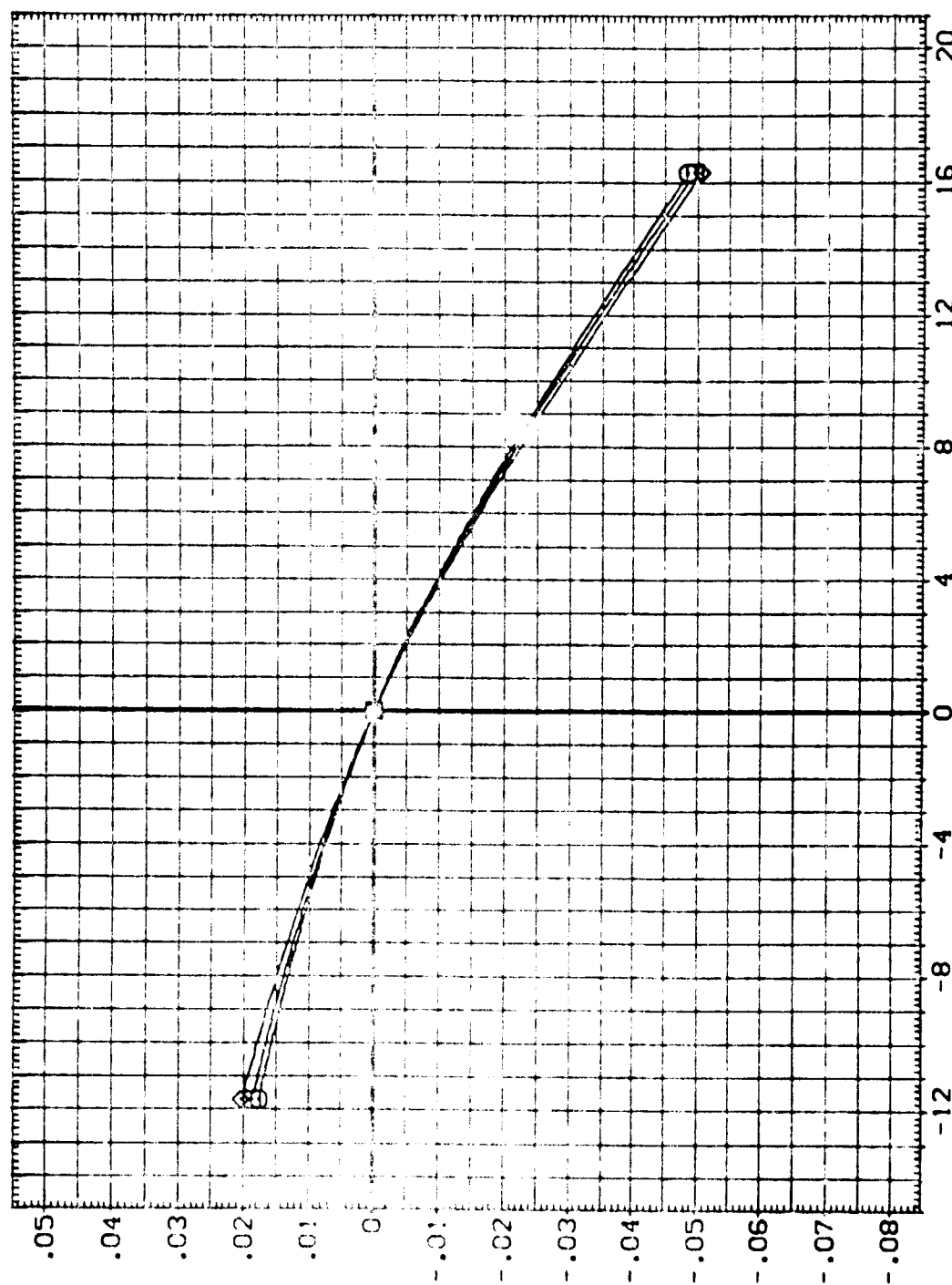


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 3.53)

FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	17.000	8.000	BETA	.000 DTW012	2690.0000 SQ.FT.
□	19.000	55.000	RUDDER	.000 DTW013	474.8100 IN.
◇	21.000	3.530			536.6800 IN.X0
△	23.000				1076.6800 IN.Y0
▽	25.000				375.0000 IN.Z0
○	27.000				.0150 SCALE

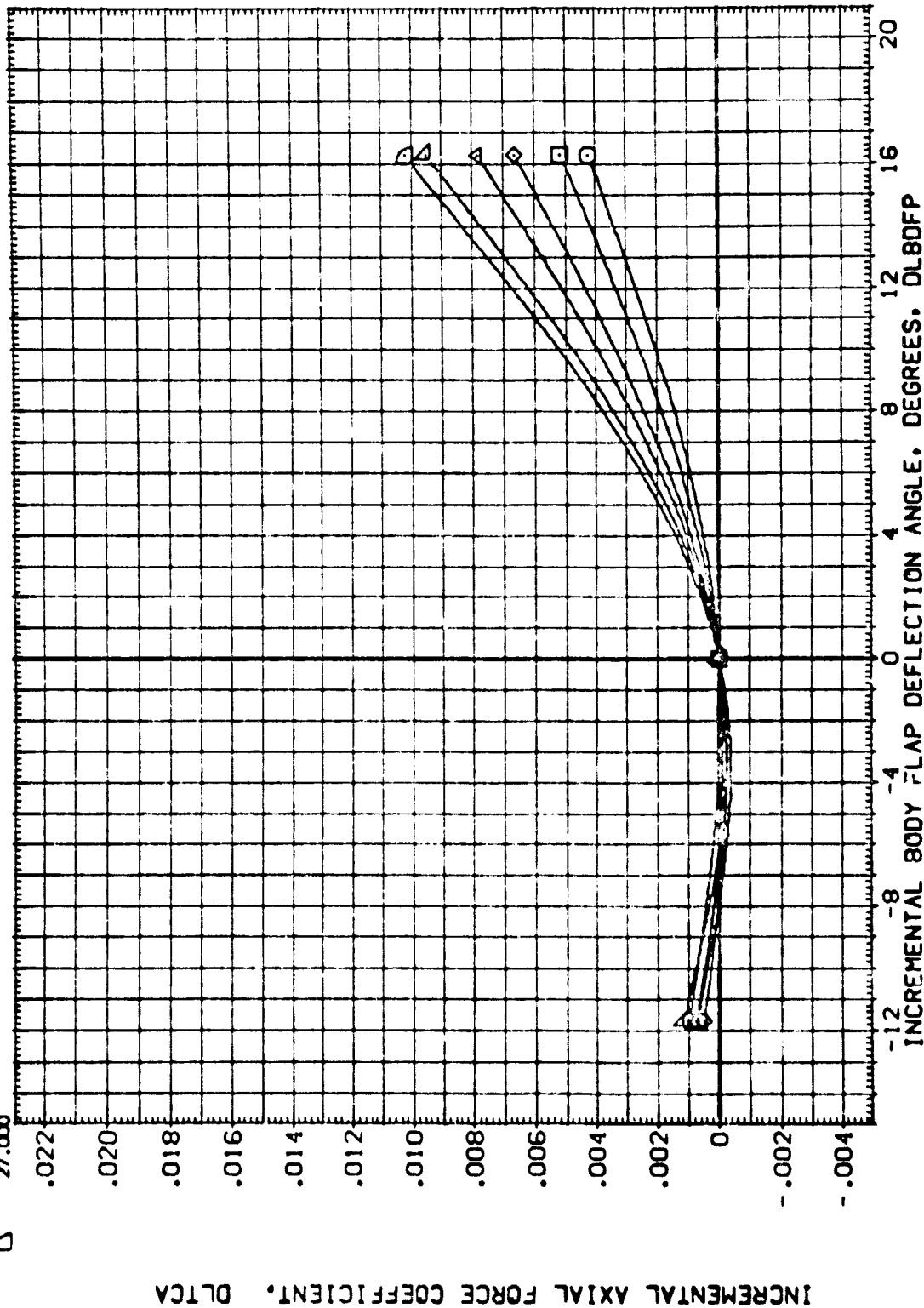


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

(DTW012)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
□  
◇  
△  
▽  
○

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000  
39.000

MACH  
SPDRK  
RWL

8.000  
55.000  
3.530

PARAMETRIC VALUES

BETA

RUDDER

.000  
.000  
DTW012  
DTW013

DATA SOURCE

DLBOFF  
-11.700  
16.300

DLBOFF  
DTW001

REFERENCE INFORMATION  
SREF 2890.0000  
LREF 474.8100  
BREF 936.6800  
XREF 1076.0000  
YREF 1100.0000  
ZREF 375.0000  
SCALE .0150

50.FT.  
IN.  
IN.  
IN.  
IN.  
IN.  
IN.

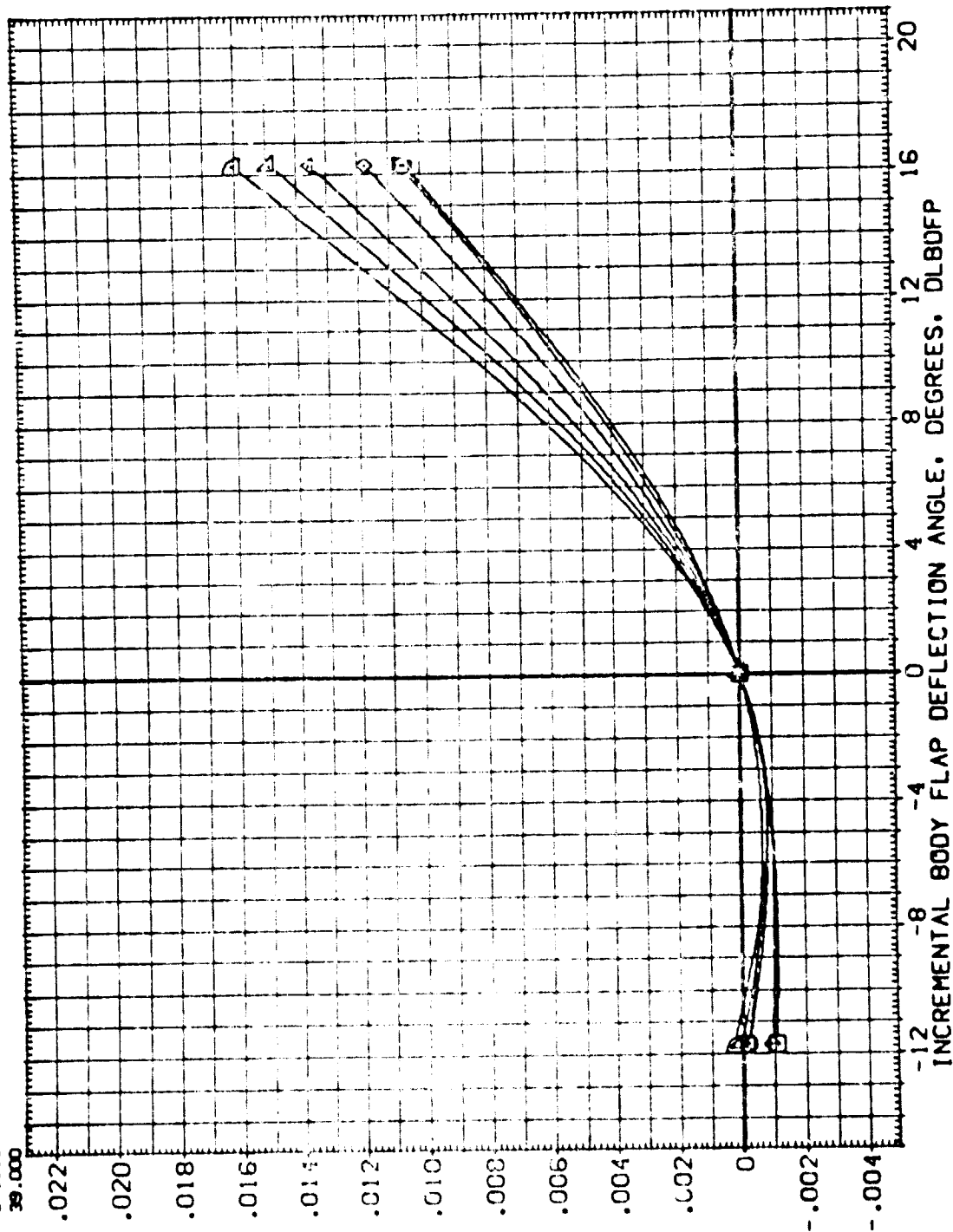


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

(DTW012)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
○  
□  
◇

ALPHA  
41.000  
43.000  
45.000

MACH  
SP0BRK  
RVAL

8.000  
55.000  
3.530

PARAMETRIC VALUES  
BETA  
RUDDER

.000  
.000  
DTW012  
DTW013

DATA SOURCE  
DLBOFP  
-11.700  
16.300

DLBOFP  
DTW001

DLBOFP  
DTW001

DLBOFP  
DTW001

DLBOFP  
DTW001

DLBOFP  
DTW001

REFERENCE INFORMATION  
SQ.FT.  
IN.  
IN.X0  
IN.Y0  
IN.Z0  
SCALE  
2690.0000  
474.8100  
936.6800  
1076.0000  
375.0000  
.0150

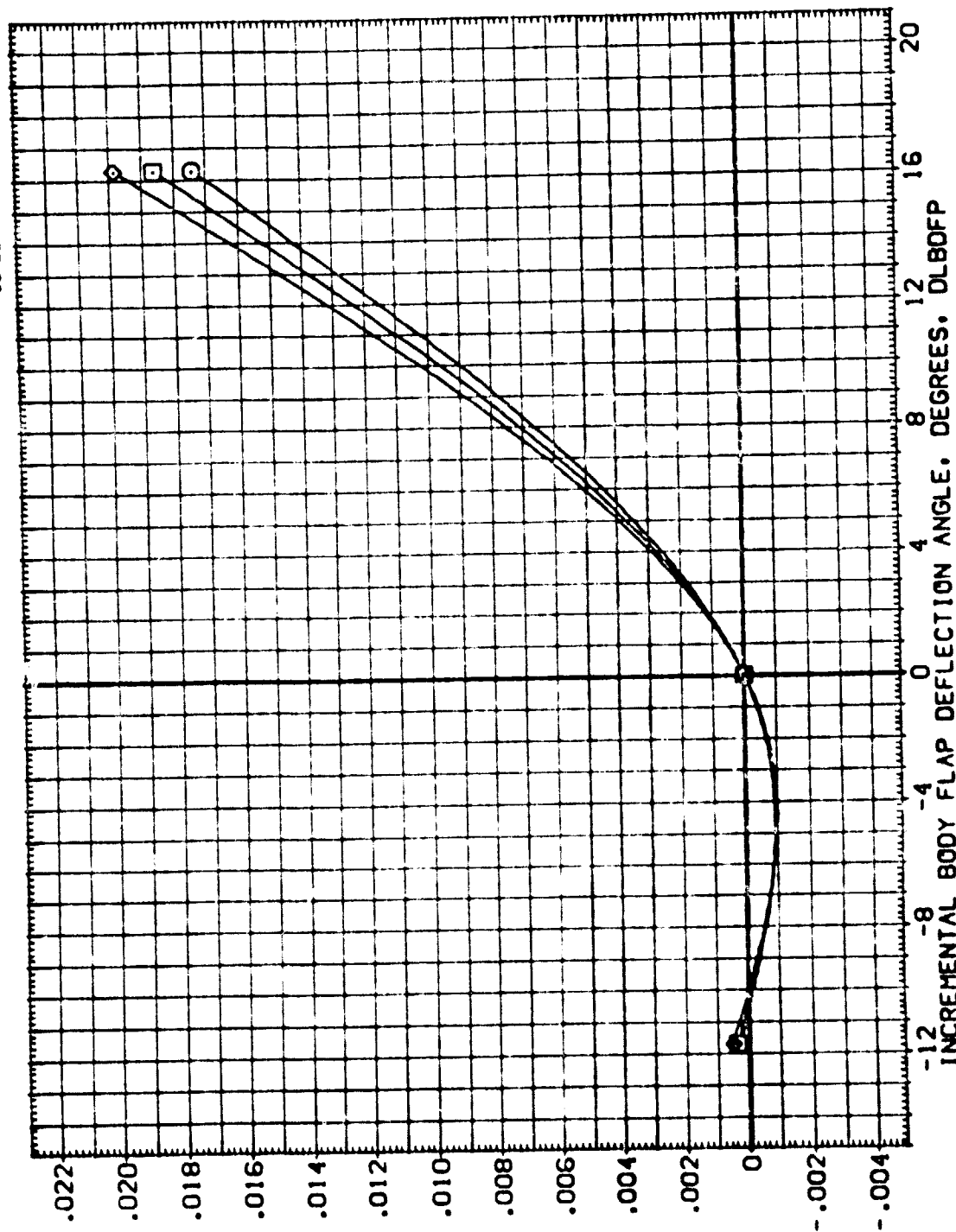


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	.000	DTW012	DLBOFP	SREF
29.000	8.000	.000	DTW013	.000	2690.0000
31.000	55.000				474.8100
33.000	3.530				936.6800
35.000					1076.6800
37.000					375.0000
39.000					SCALE .0150

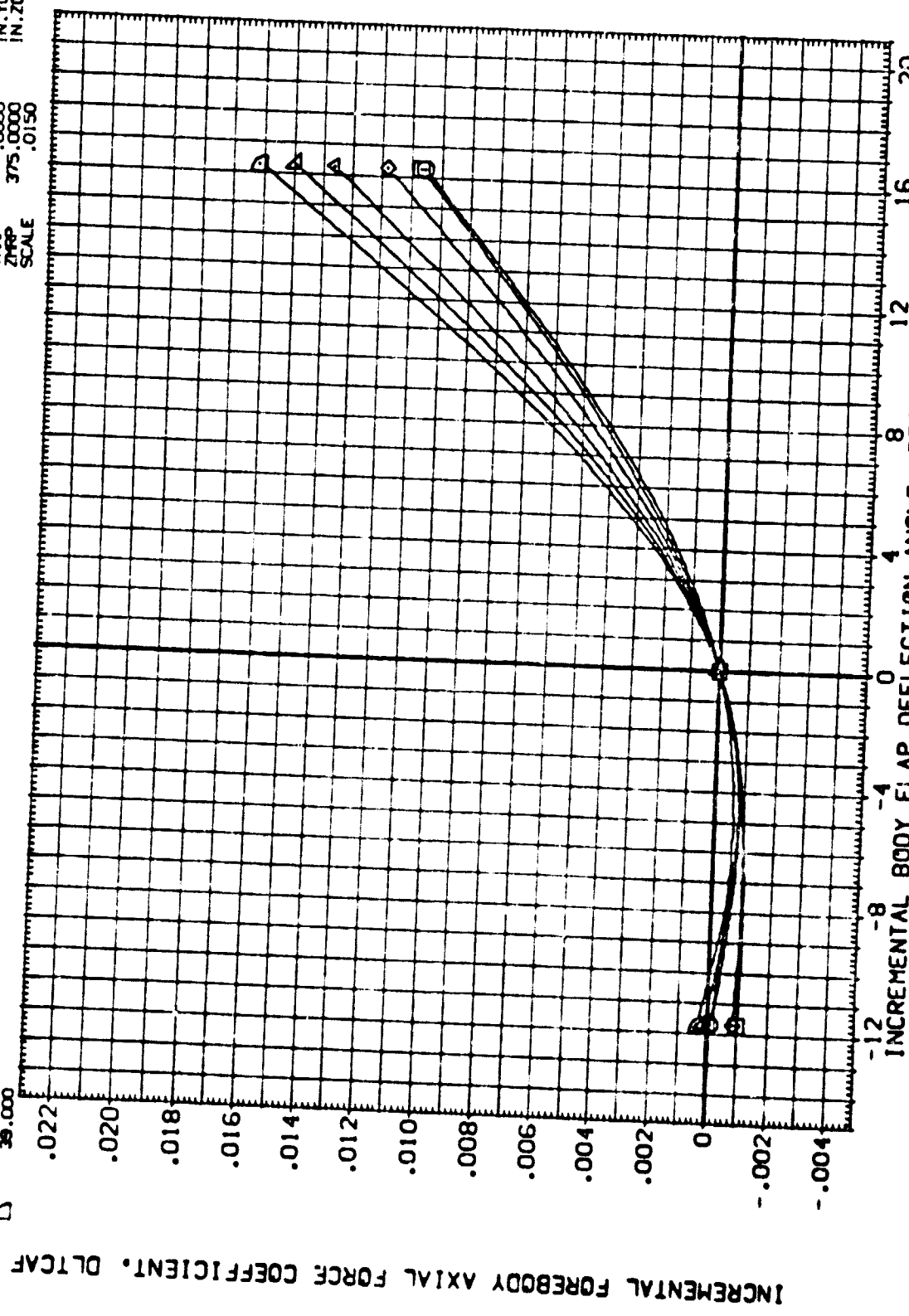


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)



0A79 B26 C9 E43 F8 H16 N28 R5 V8 W116 (DTW012)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLBDFP	REFERENCE INFORMATION
□	41.000	SPOBCK	8.000 BETA	.000	DTW012	.000	2690.0000 SQ.FT.
□	43.000	RVL	55.000 RLODER	.000	DTW013	.000	474.8100 IN.
◇	45.000		3.530	16.300			936.6800 IN.
							1076.6800 IN.
							1746.0000 IN.
							2746.0000 IN.
							375.0000 IN.
							SCALE .0150

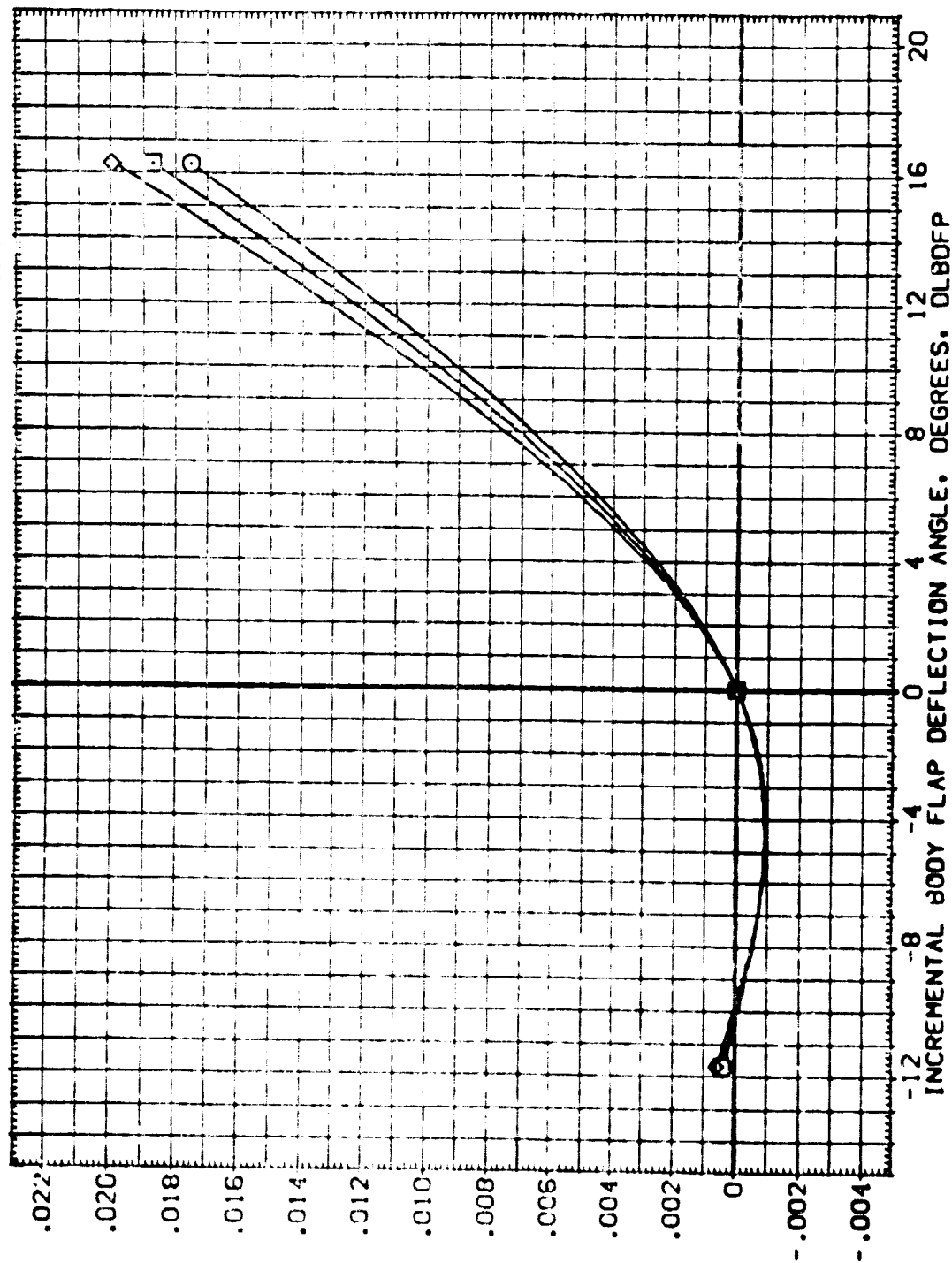


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	17.000	8.000	BETA	.000 DATASET	SRBF 2690.0000
◇	19.000	55.000	RUDDER	.000 DTW012	LRBF 474.8100
◇	21.000	3.530		.000 DTW013	SRBF 935.6800
◇	23.000				SRBF 1076.6800
◇	25.000				SRBF .0000
◇	27.000				SRBF 375.0000
					SCALE .0150

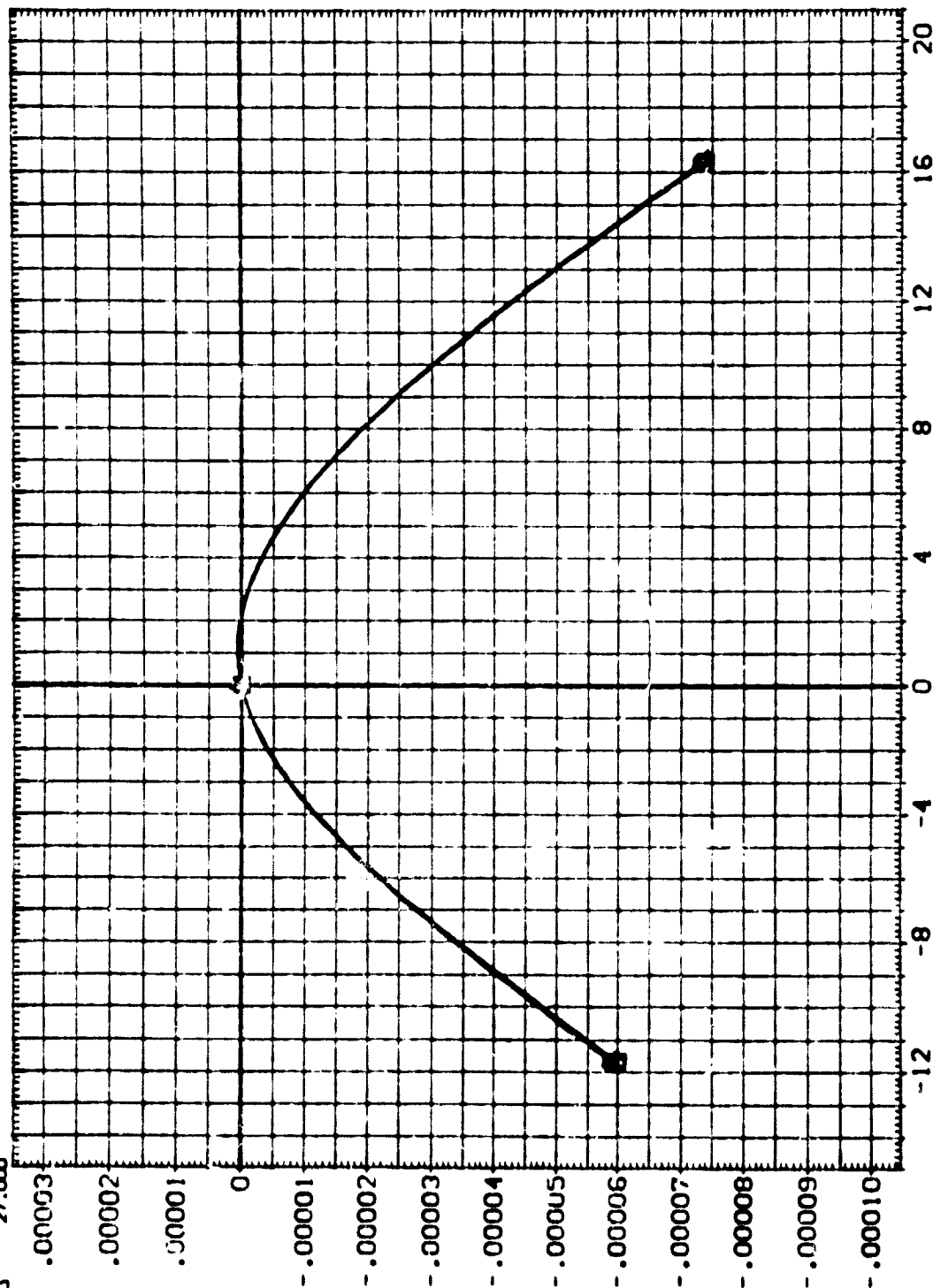


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

(DTW012)

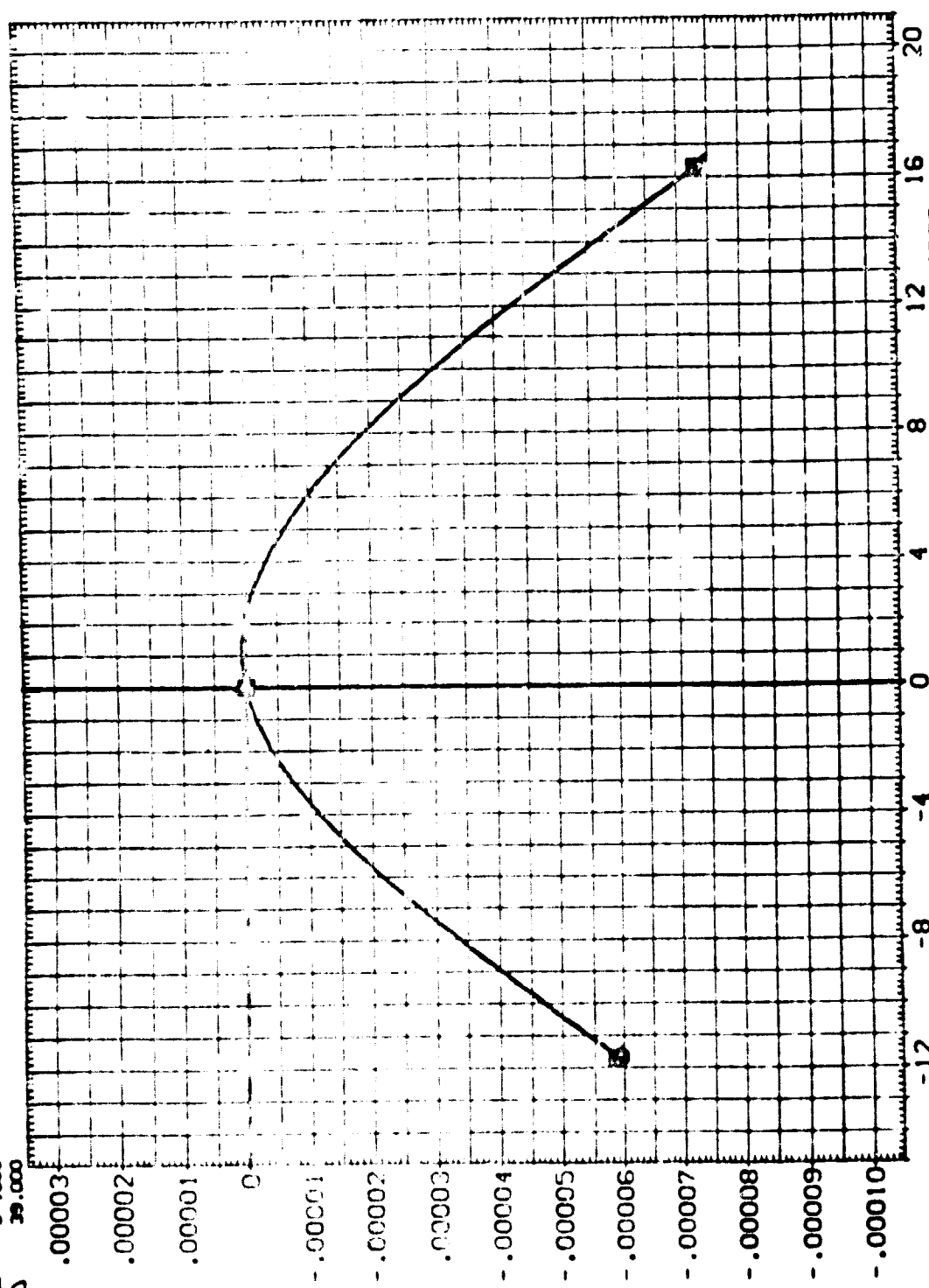
0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
SQ.FT. 2630.0000  
IN. 474.8100  
IN. 936.6800  
IN. 1075.8300  
IN. 1175.0000  
IN. 375.0000  
SCALE 0150

DATA SOURCE  
DLBOFP  
-11.700  
16.300

PARAMETRIC VALUES  
MACH 8.000  
BETA 55.000  
RUDDER 3.530

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000  
39.000



INCREMENTAL BASE AXIAL FORCE COEFFICIENT, DLTCAB

FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
SINBOUL	41.000	MACH	.00C DATASET	SREF 2690.0000 SQ.FT.
<input type="radio"/>	43.000	SPDGRK	.00C DTW012	LSEF 474.8100 IN.
<input type="checkbox"/>	45.000	RVL	.00C DTW013	XREF 936.6800 IN.XB
<input checked="" type="checkbox"/>				YFRP 1076.6800 IN.YB
				ZMRP 375.0000 IN.ZB
				SCALE .0150

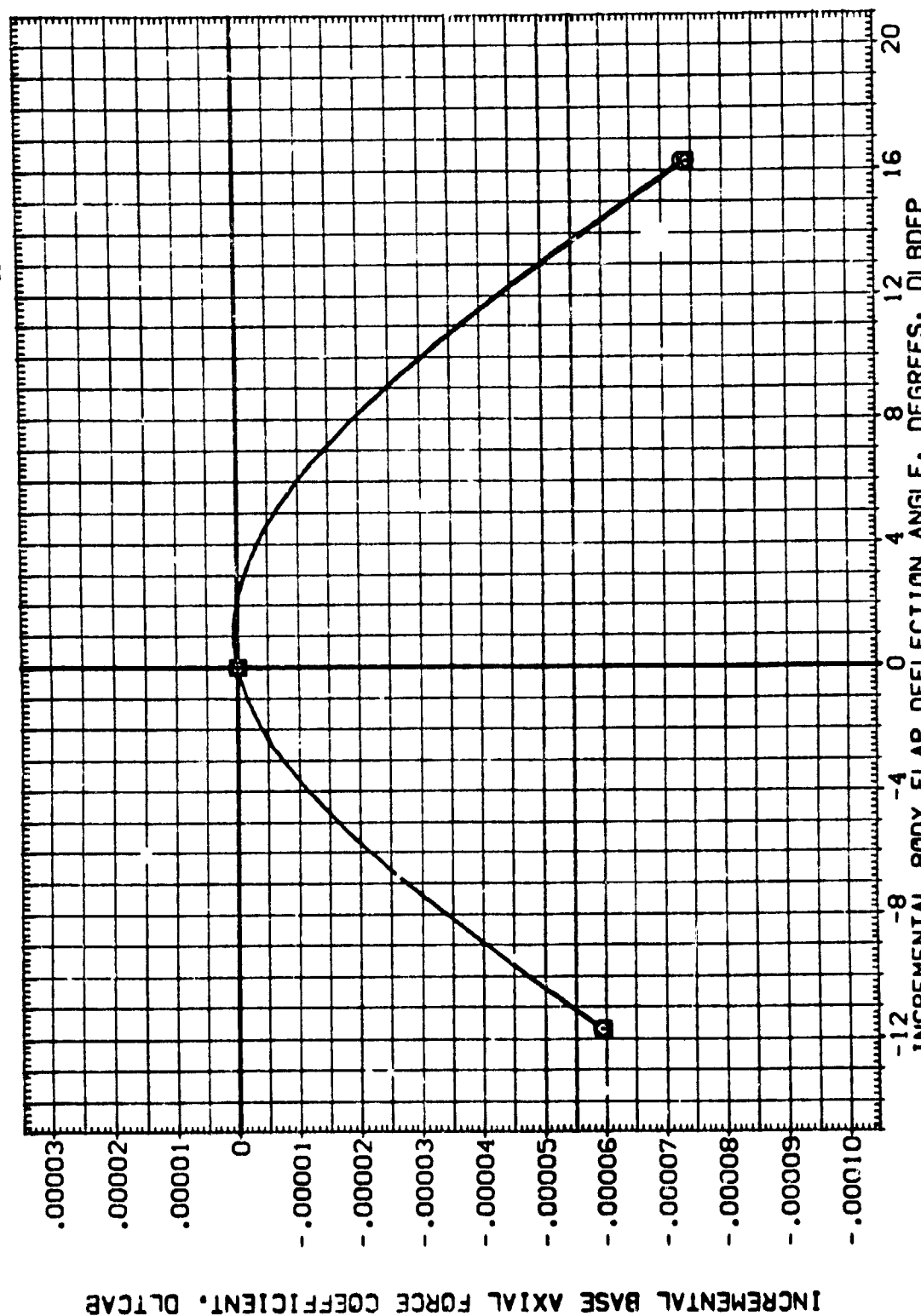


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	17.000	8.000	BETA	.000 DATASET	SREF 2690.0000 SO.FT.
□	19.000	55.000	RUDDER	.000 DTW012	LREF 474.8100 IN.
◇	21.000	3.530		.000 DTW013	XREF 936.6800 IN.
△	23.000				YREF 1076.6800 IN.
▽	25.000				ZREF .0000 IN.
◇	27.000				YREF 375.0000 IN.
					ZREF .0150 IN.

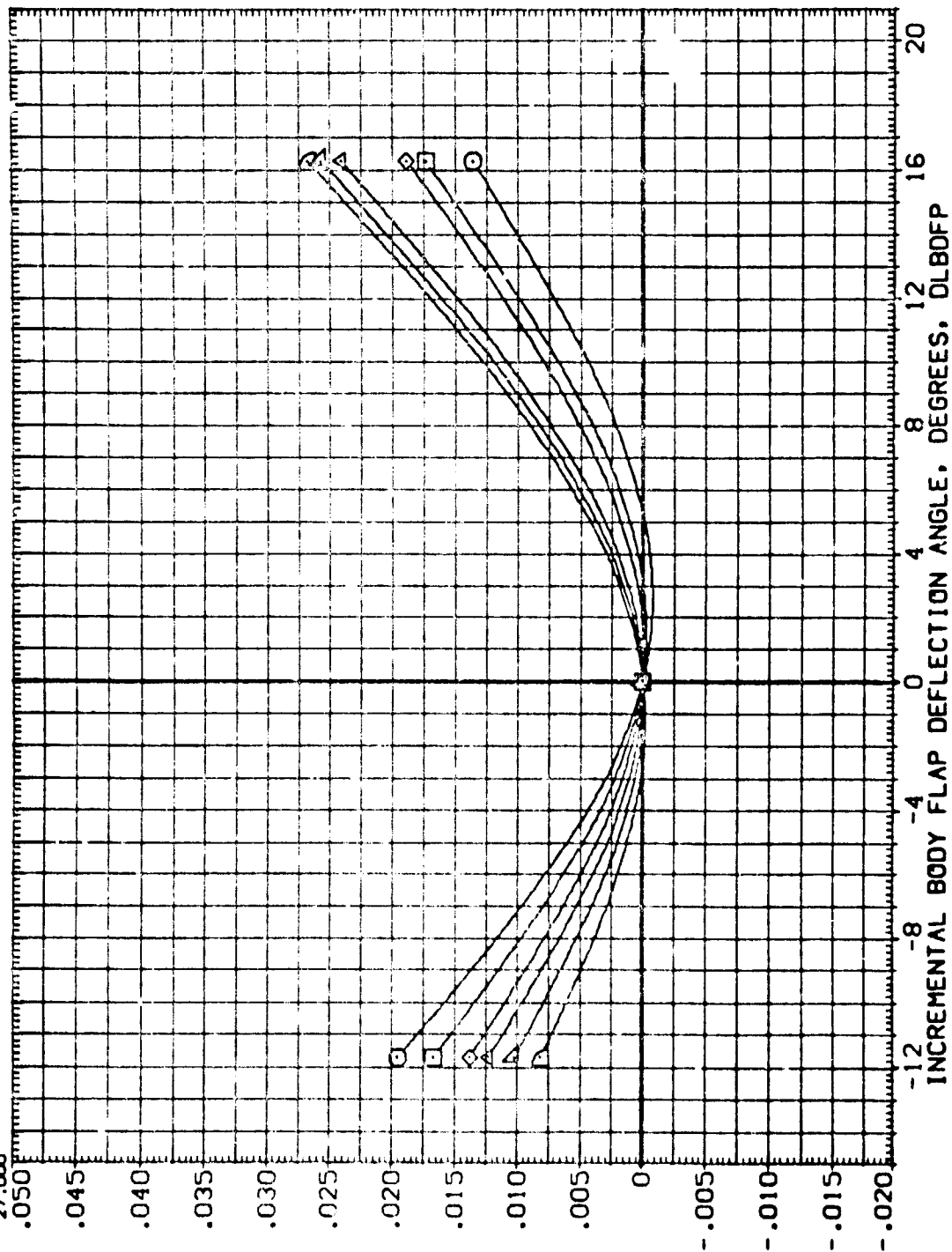


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
ALPHA	MACH	BETA	.000	DATASET	DLBDFP	SREF	50.FT.
29.000		8.000	.000	DTW012	-11.700	LREF	474.8100
31.000	SP08R	55.070	.000	DTW013	16.300	BREF	936.6800
33.000	P/L	3.530				XREF	1076.6800
35.000						YREF	375.0000
37.000						ZREF	375.0000
39.000						SCALE	.0150

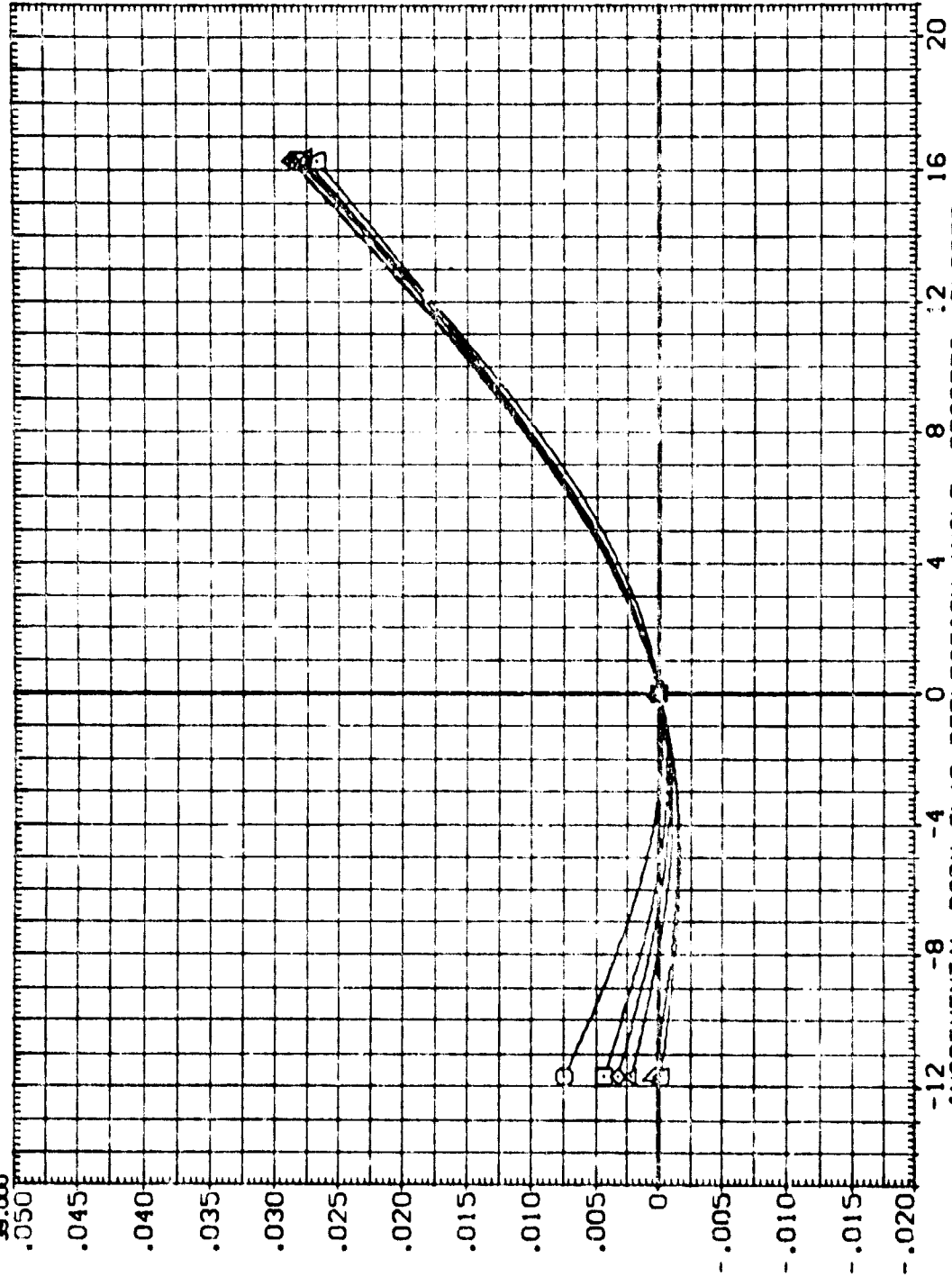


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

2690.0000	SQ.FT.
474.8100	IN.
936.6800	IN.
1076.6800	IN.X0
0.0000	IN.Y0
375.0000	IN.Z0
.0150	

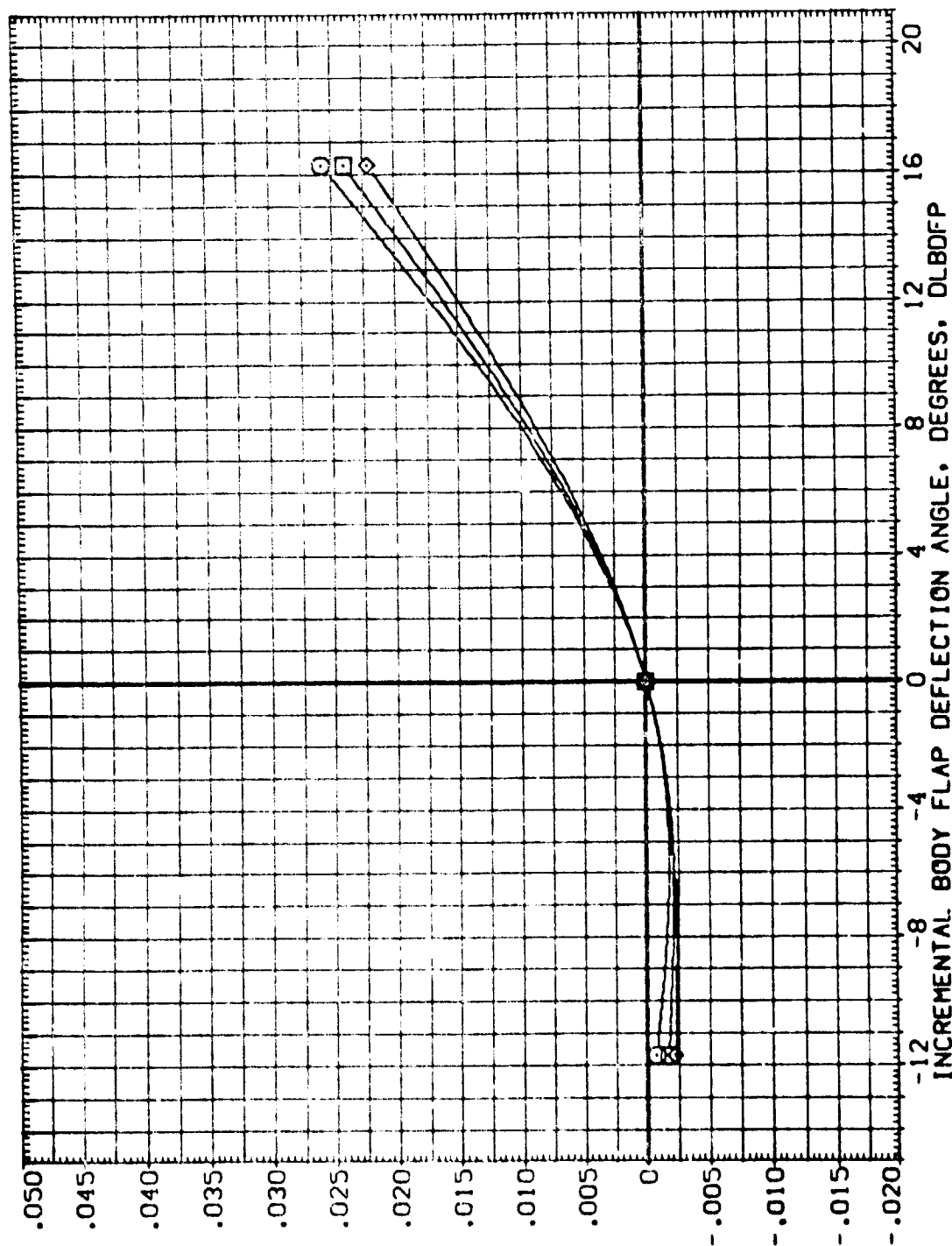


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

QA79 B26 C5 F43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION	
2630.0000	50.FT.
474.8100	IN.
936.6800	IN.
1076.6800	IN.X0
0.0000	IN.Y0
375.0000	IN.Z0
.0150	

DATA SOURCE  
DLBDFP  
-11.700  
16.300

PARAMETRIC VALUES	
BETA	8.000
RUDDER	\$5.000
	3.530

ALPHA  
17,000  
19,000  
21,000  
23,000  
25,000  
27,000

TB-645

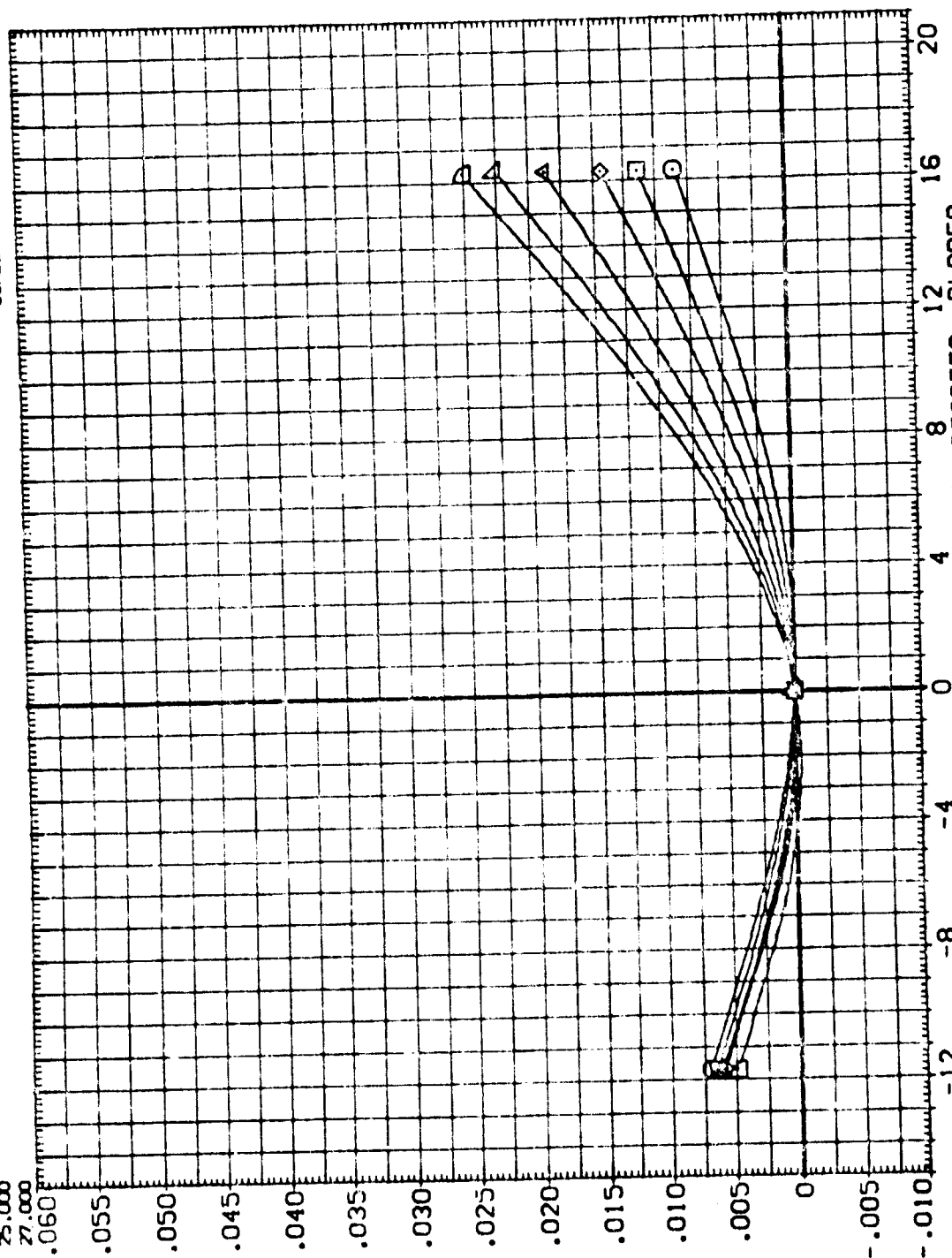


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 3.53)



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW012)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	29.000	8.000	BETA	.000 DATASET DTW012	SREF 2690.0000 SQ.FT.
□	31.000	55.000	RUDDER	.000 DTW013	LREF 474.8100 IN.
◇	33.000	3.530			BREF 936.6800 IN.X0
△	35.000				YREF 1076.6900 IN.Y0
▽	37.000				ZREF .0000 IN.Z0
◇	39.000				SCALE 375.0000

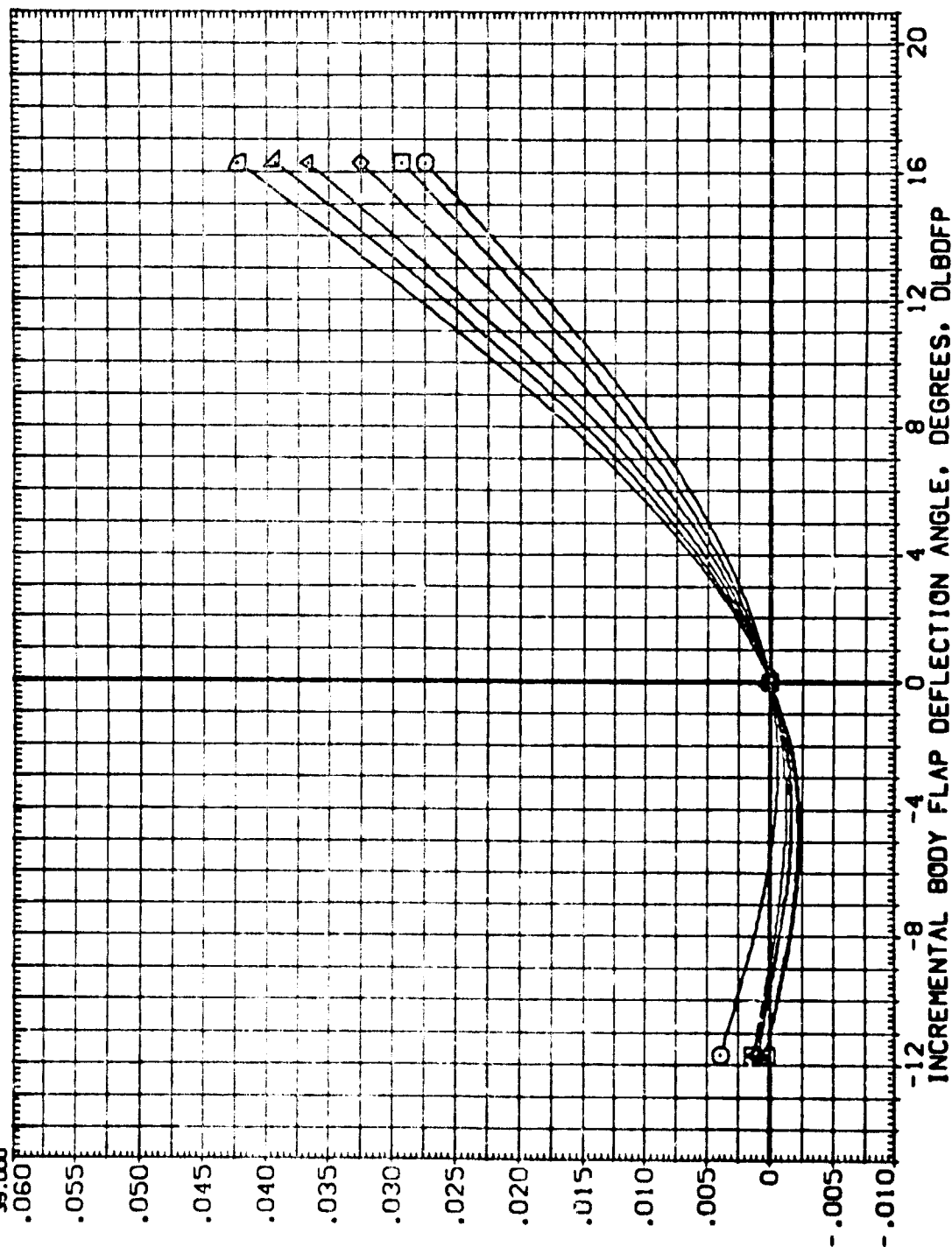


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

(DTW012)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL	ALPHA	MACH	SPDRK	RUL	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLBDFP	SRE	REFERENCE INFORMATION
○	41.000				BETA	DLBDFP	.000	.000	2690.0000	50.FT.
□	43.000				RUDDER	DTW012	.000	.000	474.8100	IN.
◇	45.000				3.530	DTW013	.000	.000	936.8800	IN. X0
									1076.6900	IN. Y0
									375.0000	IN. Z0
									.0150	SCALE

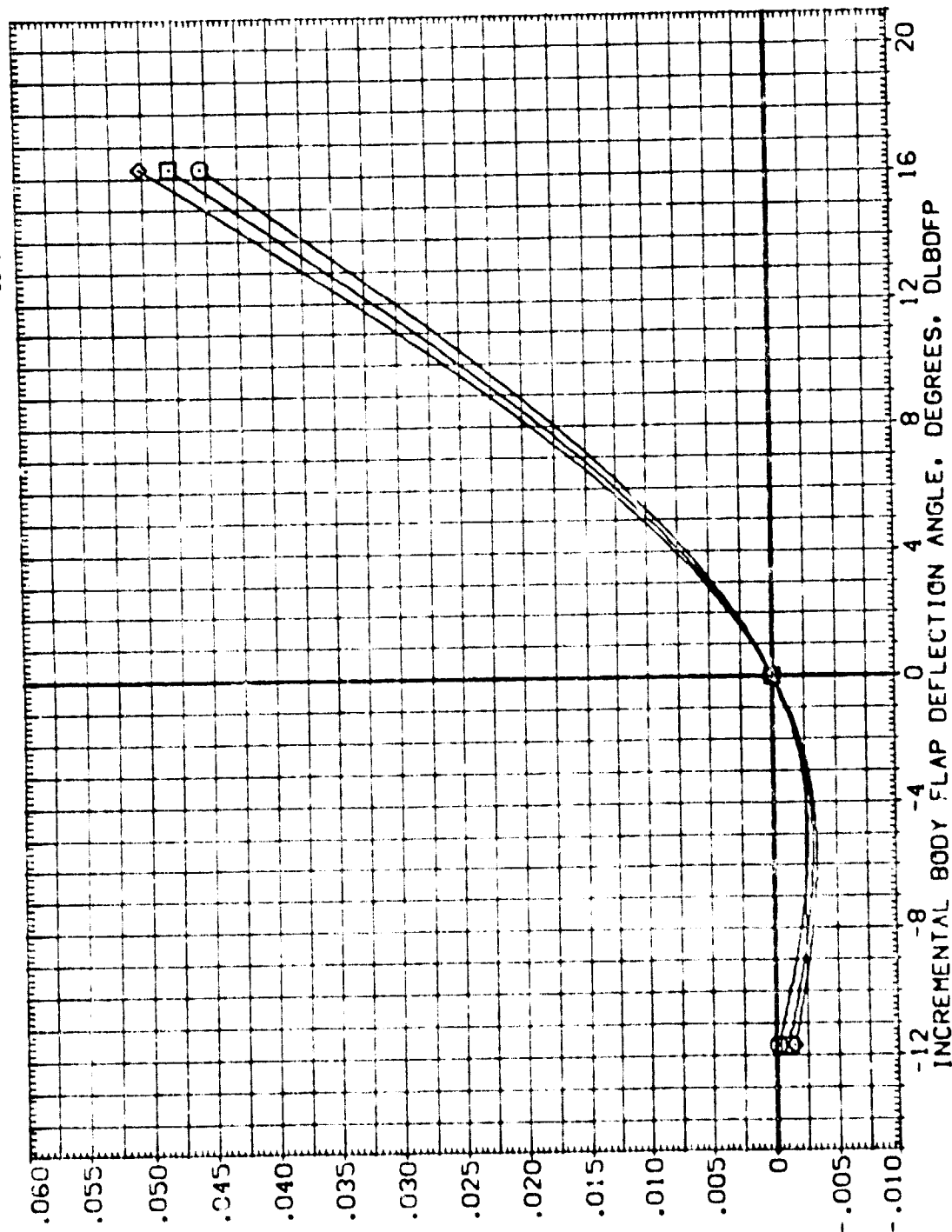


FIG. 16 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 3.53)

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(C1V048)    3A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

(C1V049)    3A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

(C1V049)    3A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

BOFLAP    RVL

-11.700    1.850

16.300    1.850

REFERENCE INFORMATION

SREF    2630.0000    SQ.FT.

LREF    474.8100    IN.

CREF    936.6800    IN.

XMRP    1076.6800    IN.X0

YMRP    .0000    IN.Y0

ZMRP    375.0000    IN.Z0

SCALE    .0150

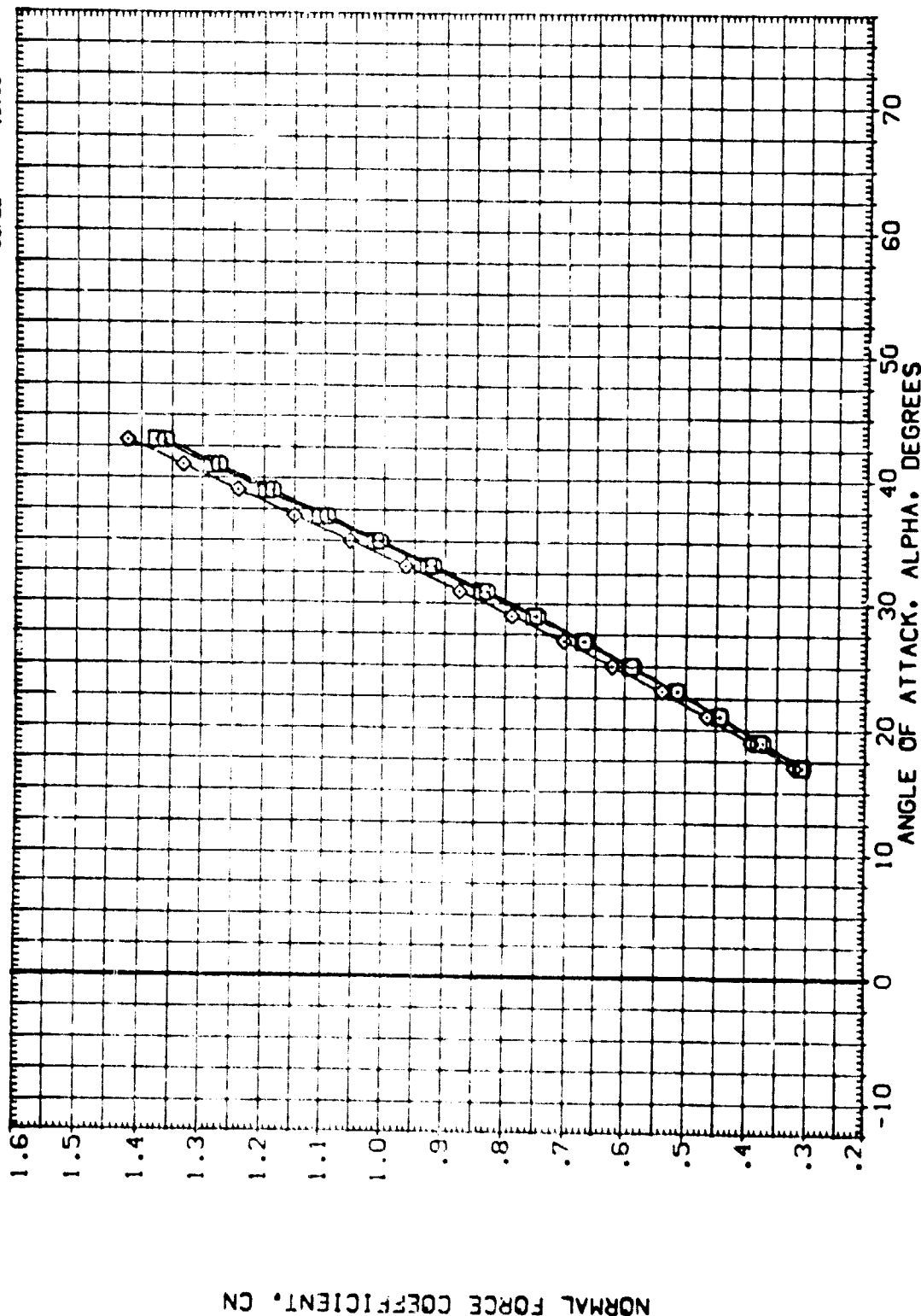


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

REFERENCE INFORMATION  
 SREF 2650.0000 SQ.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XREF 1076.6800 IN.  
 YREF .0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

REFLAP HVL  
 -11.700 1.860  
 .000 1.860  
 16.300 1.860

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CTV048) Q BA79 B26 C9 E43 F8 H16 N28 RS V8 V116  
 (CTV049) Q BA79 B26 C9 E43 F8 H16 N28 RS V8 V116  
 (CTV049) Q BA79 B26 C9 E43 F8 H16 N28 RS V8 V116

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH(FORWARD C. G.) CLMFD

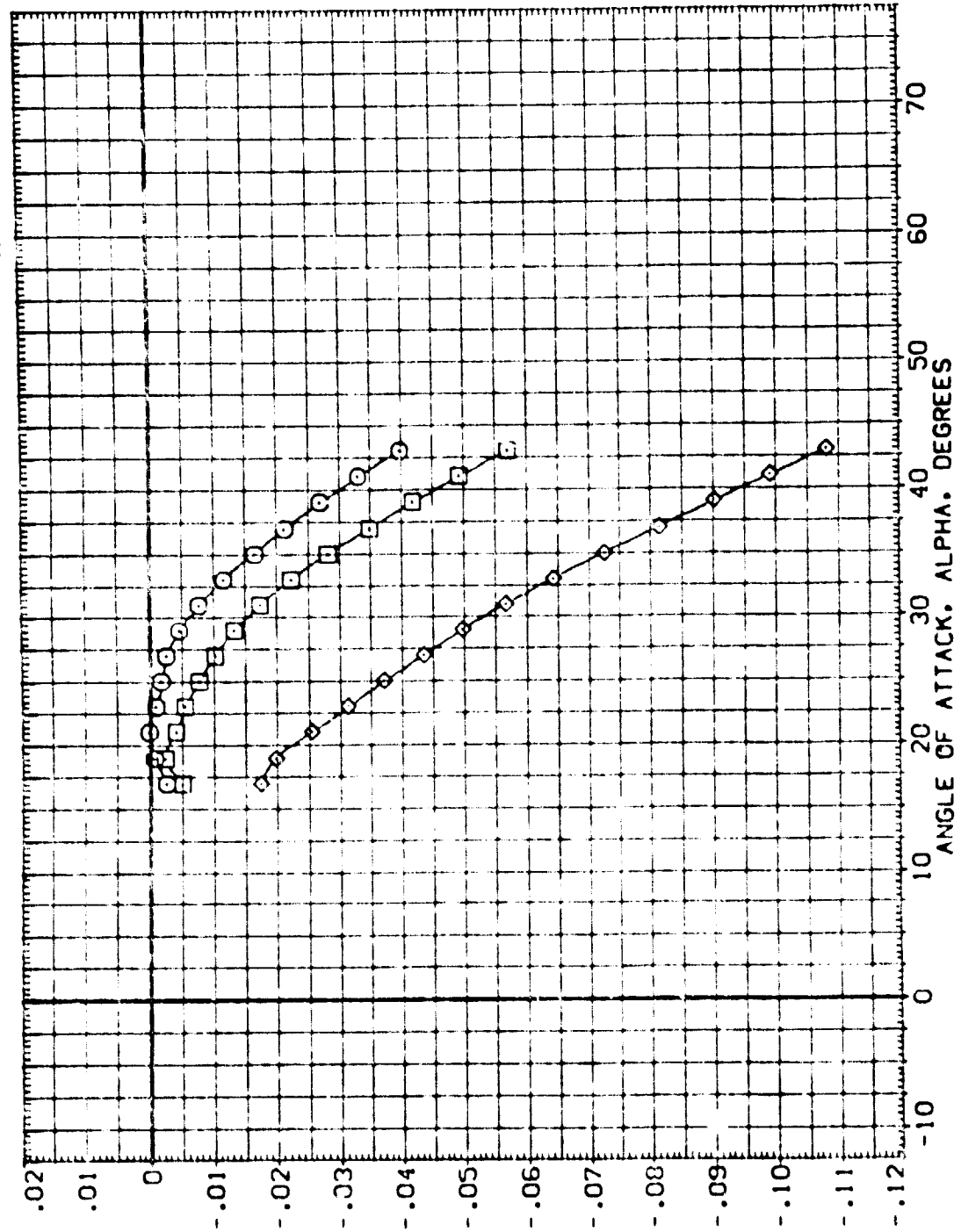


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CTV048) 0A79 826 C9 E43 F8 M16 N28 RS V8 V116  
 (CTV040) 0A79 826 C9 E43 F8 M16 N28 RS V8 V116  
 (CTV049) 0A79 826 C9 E43 F8 M16 N28 RS V8 V116

BOFLAP R/L  
 -11.700 1.860  
 .000 1.860  
 16.300 1.860

REFERENCE INFORMATION  
 SREF 2690.0000 50.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XREF 1076.6800 IN.  
 YREF .0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

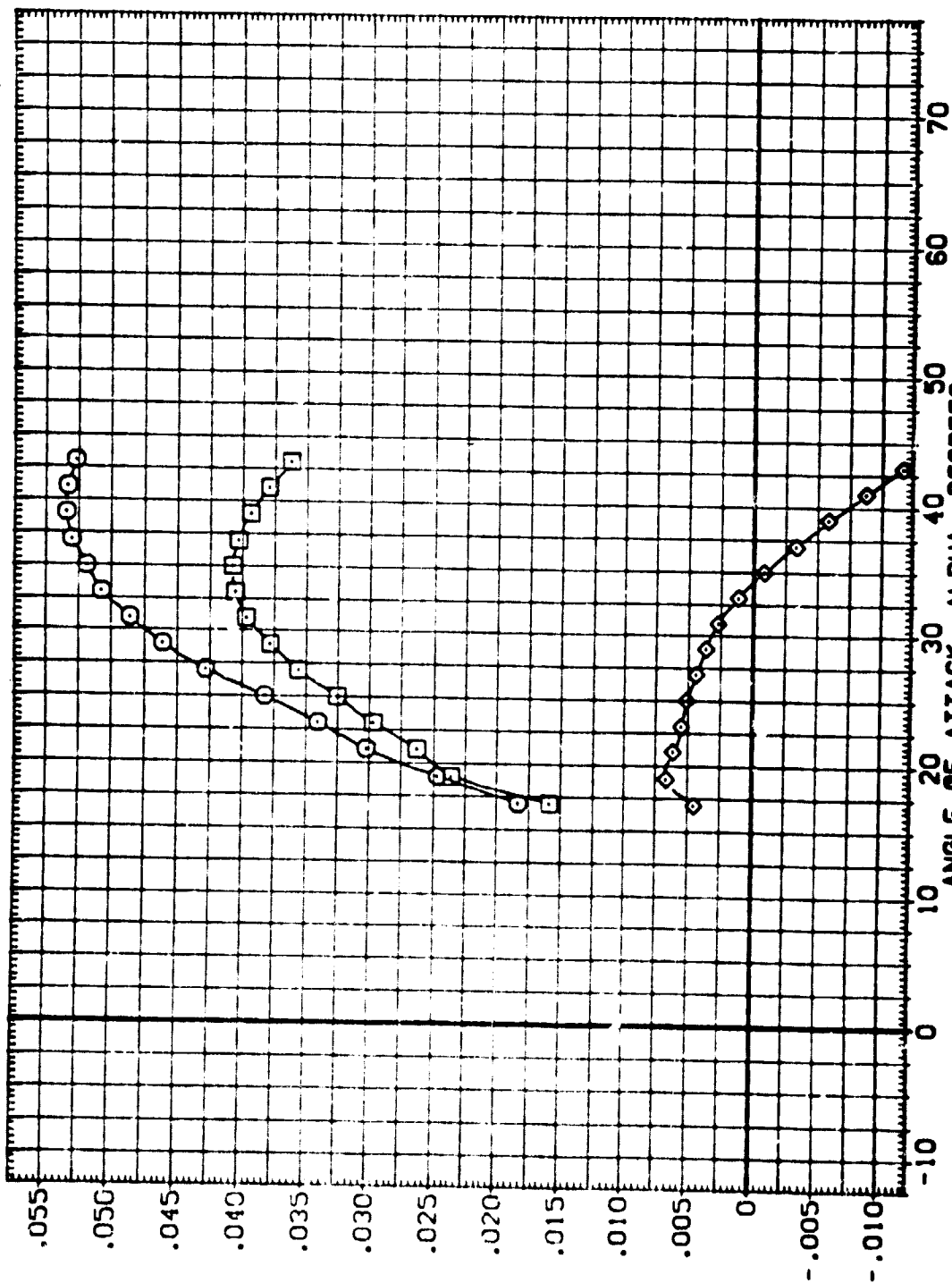


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DOFLAP	RVAL	REFERENCE INFORMATION
(CTV048)	0A79 826 C9 E43 F8 M16 N28 RS V8 W116	-11.700	1.860	SREF 2690.0000 50. FT.
(CTV049)	0A79 826 C9 E43 F8 M16 N28 RS V8 W116	.000	1.860	LREF 474.8100 IN.
(CTV049)	0A79 826 C9 E43 F8 M16 N28 RS V8 W116	16.300	1.860	BREF 936.6800 IN.
				XREF 1076.6800 IN. X0
				YREF .0000 IN. Y0
				ZREF 375.0000 IN. Z0
				SCALE .0150

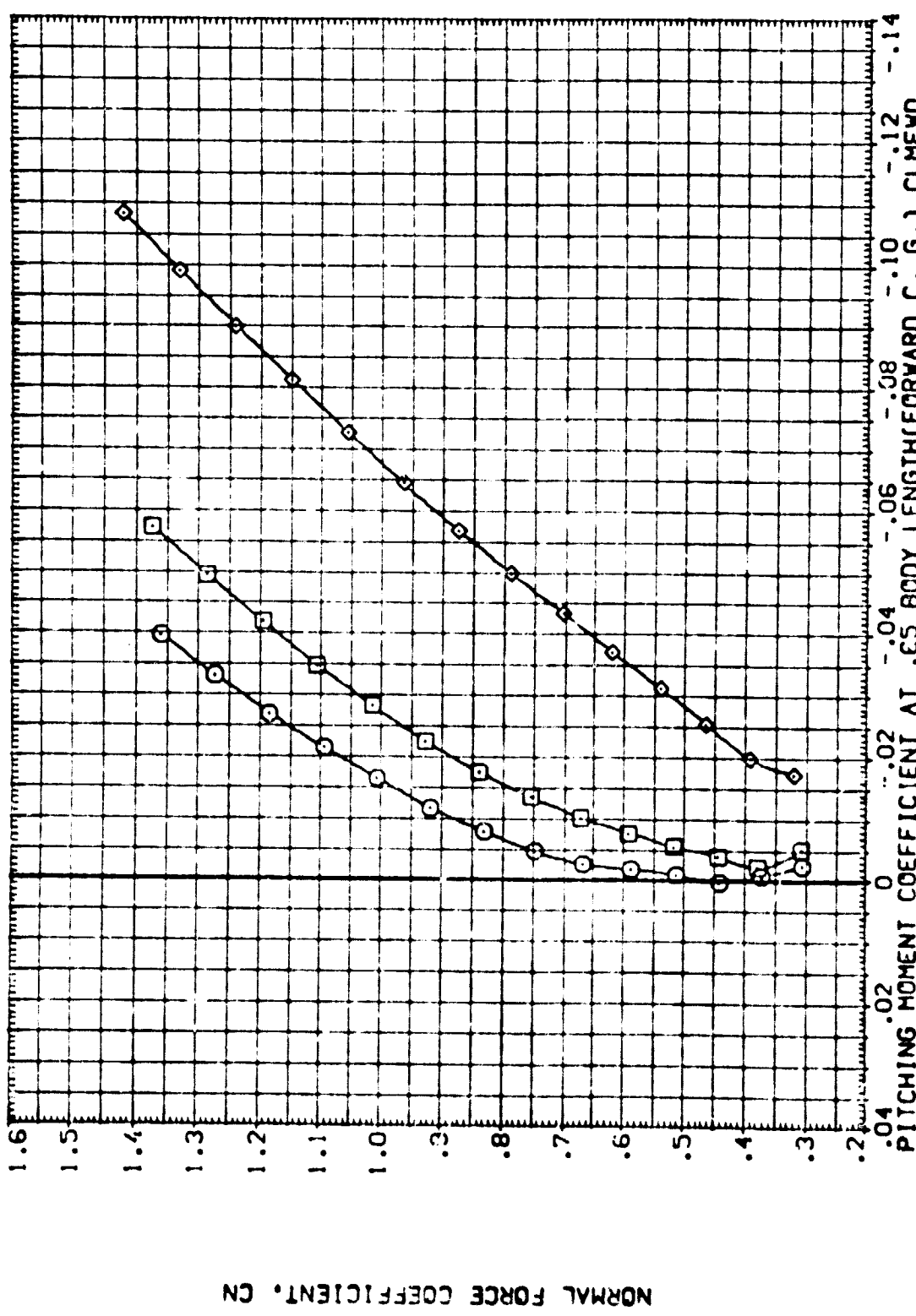


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A) MACH = 7.98

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(C1W048)	QAY8 B26 C9 E43 F8 M16 N28 R5 V8 V116
(C1W040)	QAY8 B26 C9 E43 F8 M16 N28 R5 V8 V116
(C1W049)	QAY8 B26 C9 E43 F8 M16 N28 R5 V8 V116

BUFLAP FAVL

-11.700	1.860
1.000	1.860
16.300	1.860

REFERENCE INFORMATION

SREF	2630.0000	50. FT.
LREF	474.8100	IN.
BREF	936.5800	IN.
XREF	716.6800	IN.
YREF	375.0000	IN.
ZREF	375.0000	IN.
SCALE	.0150	

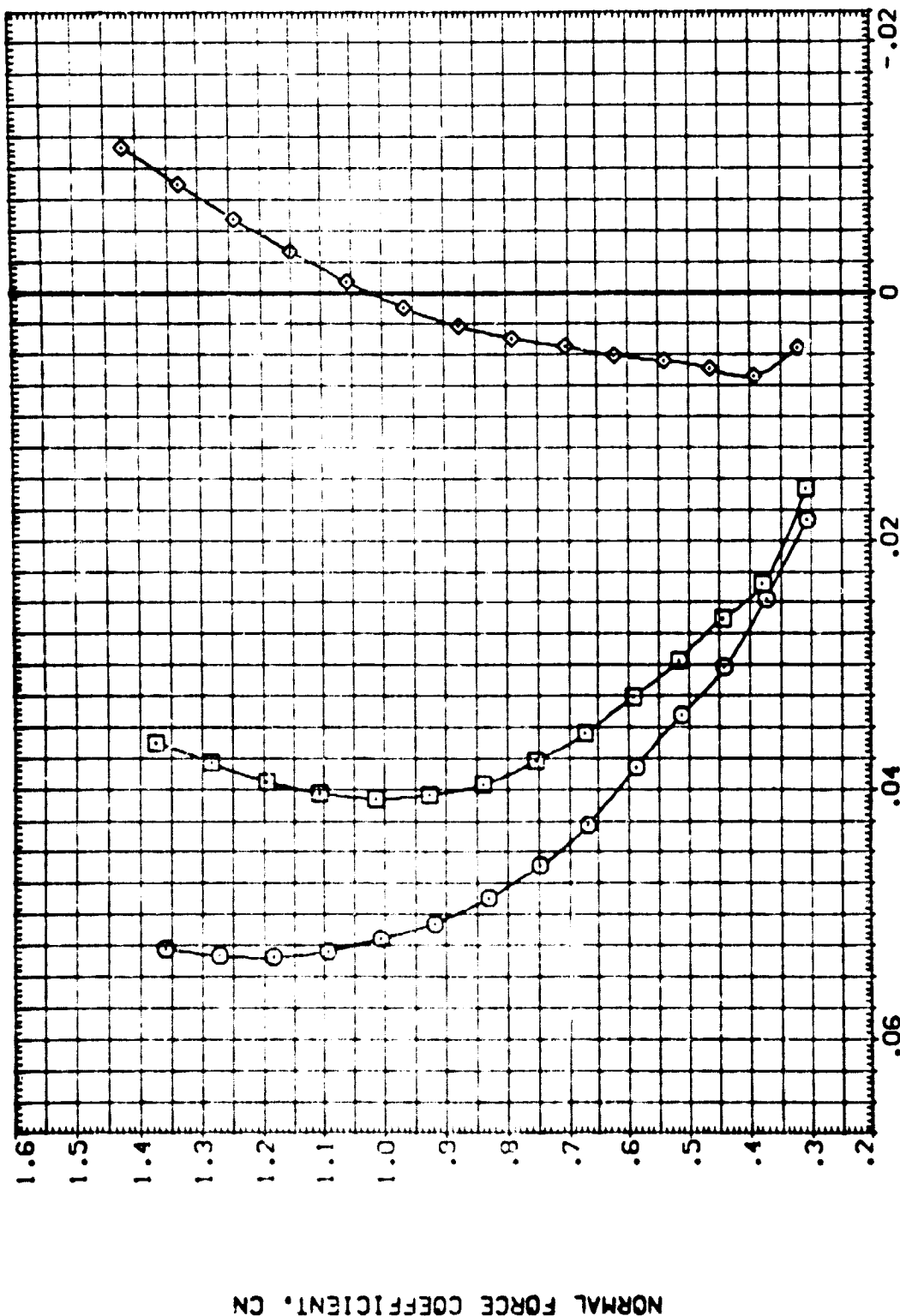


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL      CONFIGURATION DESCRIPTION

(C1V048)	DATA B26 C9 E43 F8 M16 N28 R5 V8 V116
(C1V049)	DATA B26 C9 E43 F8 M16 N28 R5 V8 V116
(C1V049)	DATA B26 C9 E43 F8 M16 N28 R5 V8 V116

BOFLAP      RN/L

-11.700	1.860
.000	1.860
16.300	1.860

CENTER OF PRESSURE LOCATION AS A FRACTION OF BODY LENGTH, XCP/L

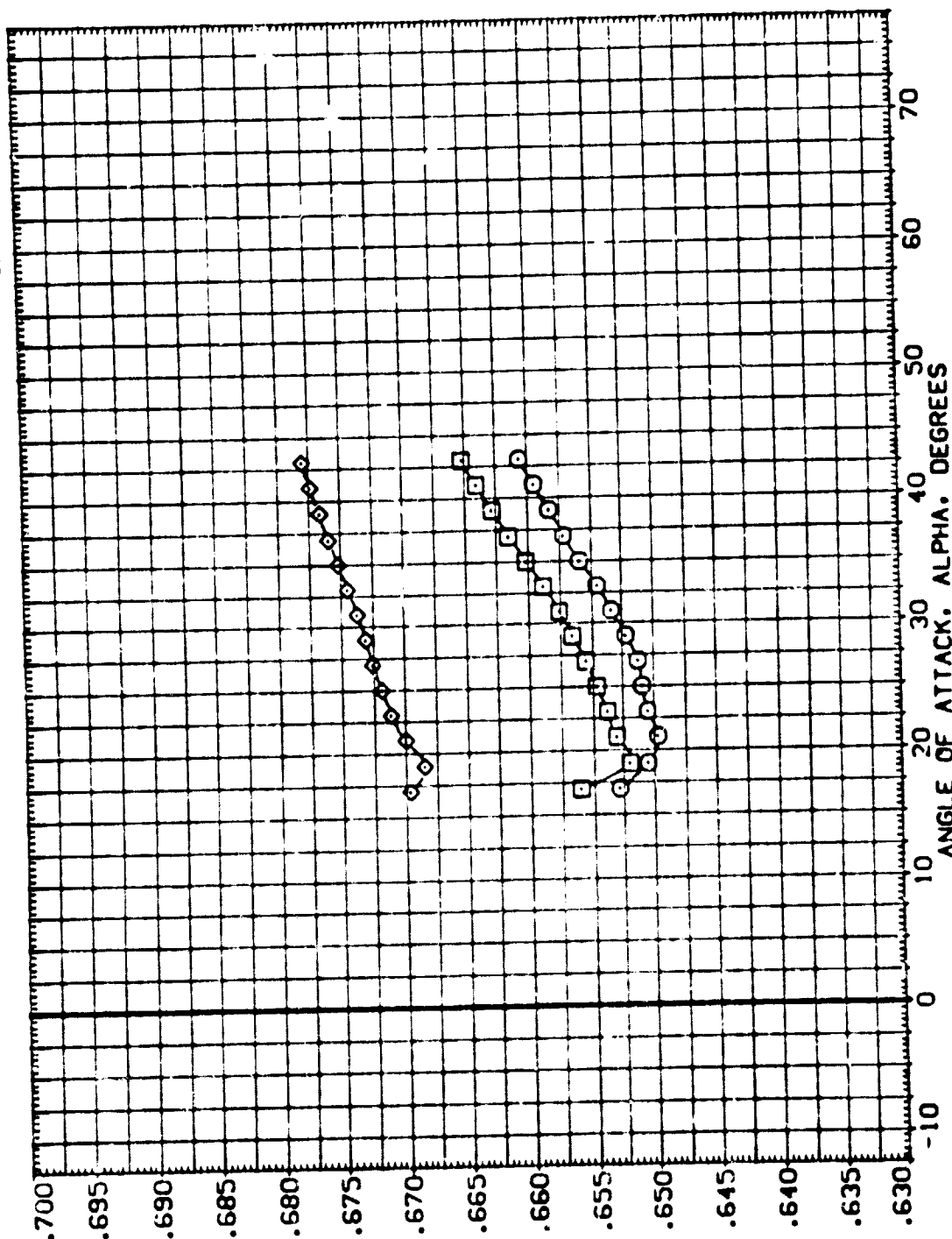


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BD FLAP	RV/L	REFERENCE INFORMATION
(CTV048)	0479 B26 C9 E43 F8 M16 N28 R5 V8 V116	-11.700	1.860	SREF 2650.0000 SQ.FT.
(CTV049)	0479 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	1.860	LREF 474.8100 IN.
(CTV045)	0479 B26 C9 E43 F8 M16 N28 R5 V8 V116	16.300	1.860	BREF 906.6300 IN.
				XREF 1076.6800 IN.X0
				YREF .0000 IN.Y0
				ZREF 375.0000 IN.Z0
				SCALE .0150

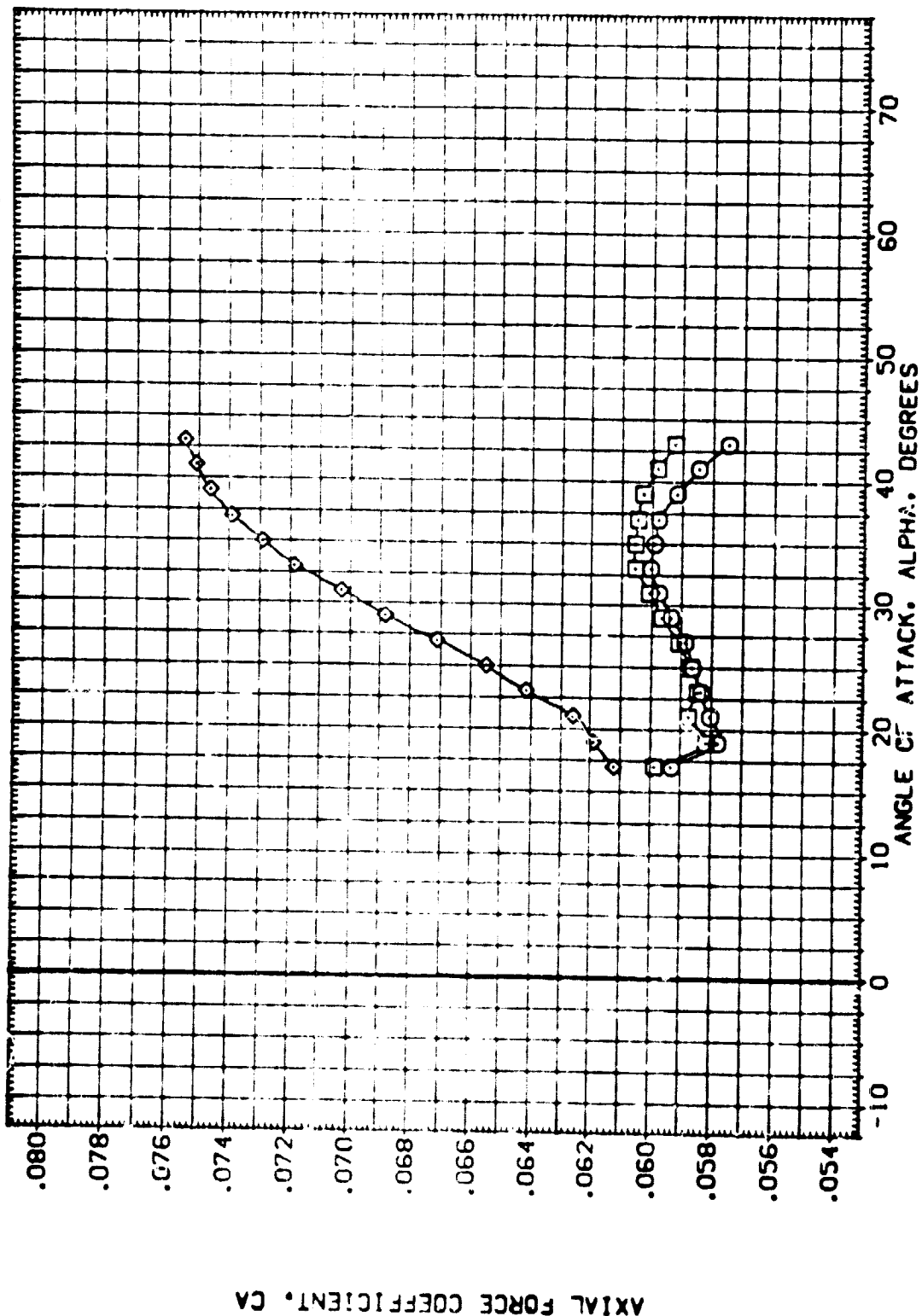


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BDFLAP	RM/L	REFERENCE INFORMATION
(CTV048)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	-11.700	1.860	SREF 2650.0000 SQ.FT.
(CTV049)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	1.860	LREF 474.8100 IN.
(CTV049)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	16.300	1.860	BREF 936.6800 IN.
				XREF 1076.6800 IN.X0
				YREF .0000 IN.Y0
				ZREF 375.0000 IN.Z0
				SCALE .0150

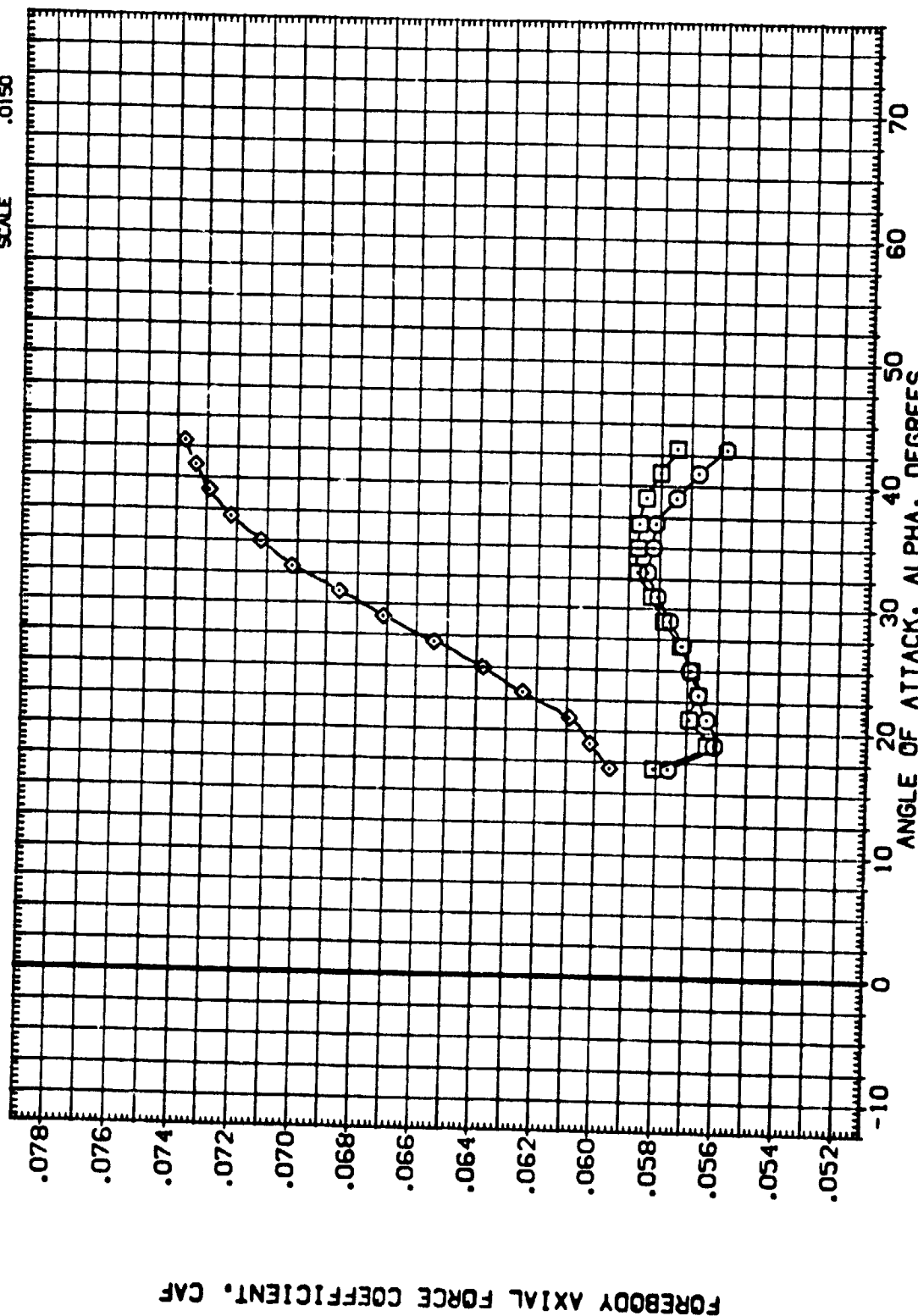


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL:    
 (CIVOM1) DAY9 B26 C9 E43 F8 M16 N28 R5 V8 VII6  
 (CIVOM2) DAY9 B26 C9 E43 F8 M16 N28 R5 V8 VII6  
 (CIVOM3) DAY9 B26 C9 E43 F8 M16 N28 R5 V8 VII6

BOFLAP RV/L  
 -11.700 1.860  
 .000 1.860  
 16.300 1.860

REFERENCE INFORMATION  
 SREF 2690.0000 SQ.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XREF 1076.6800 IN.  
 YREF .0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

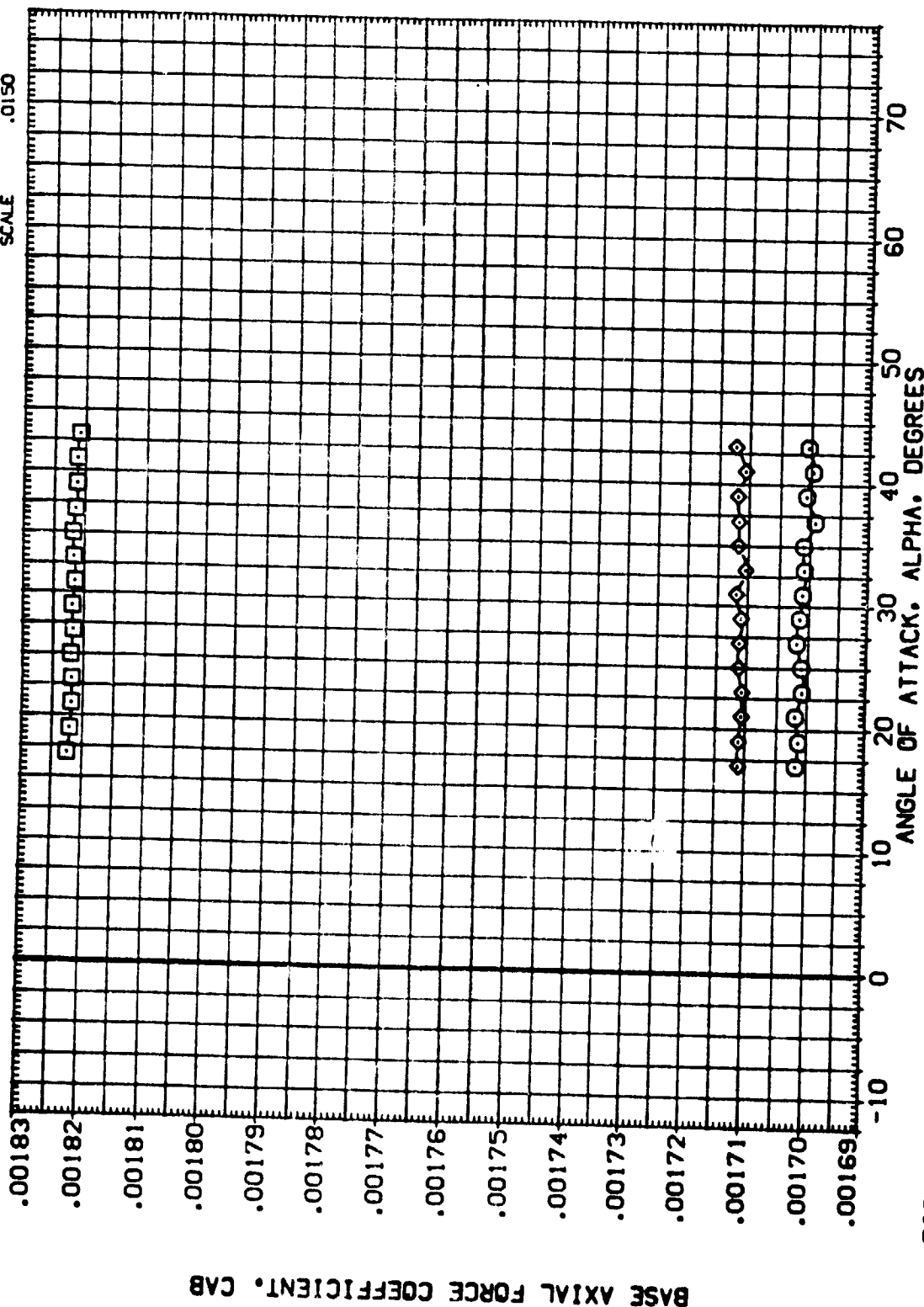


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL      CONFIGURATION DESCRIPTION

(CTV049)      0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

(CTV040)      0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

(CTV049)      0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

BD FLAP      RNVL

-11.700      1.860

16.300      1.860

REFERENCE INFORMATION

SREF      2690.0000      SQ.FT.

LREF      474.8100      IN.

BREF      936.6800      IN.

XTRP      1076.6800      IN.

YTRP      .0000      IN.

ZTRP      375.0000      IN.

SCALE      .0150

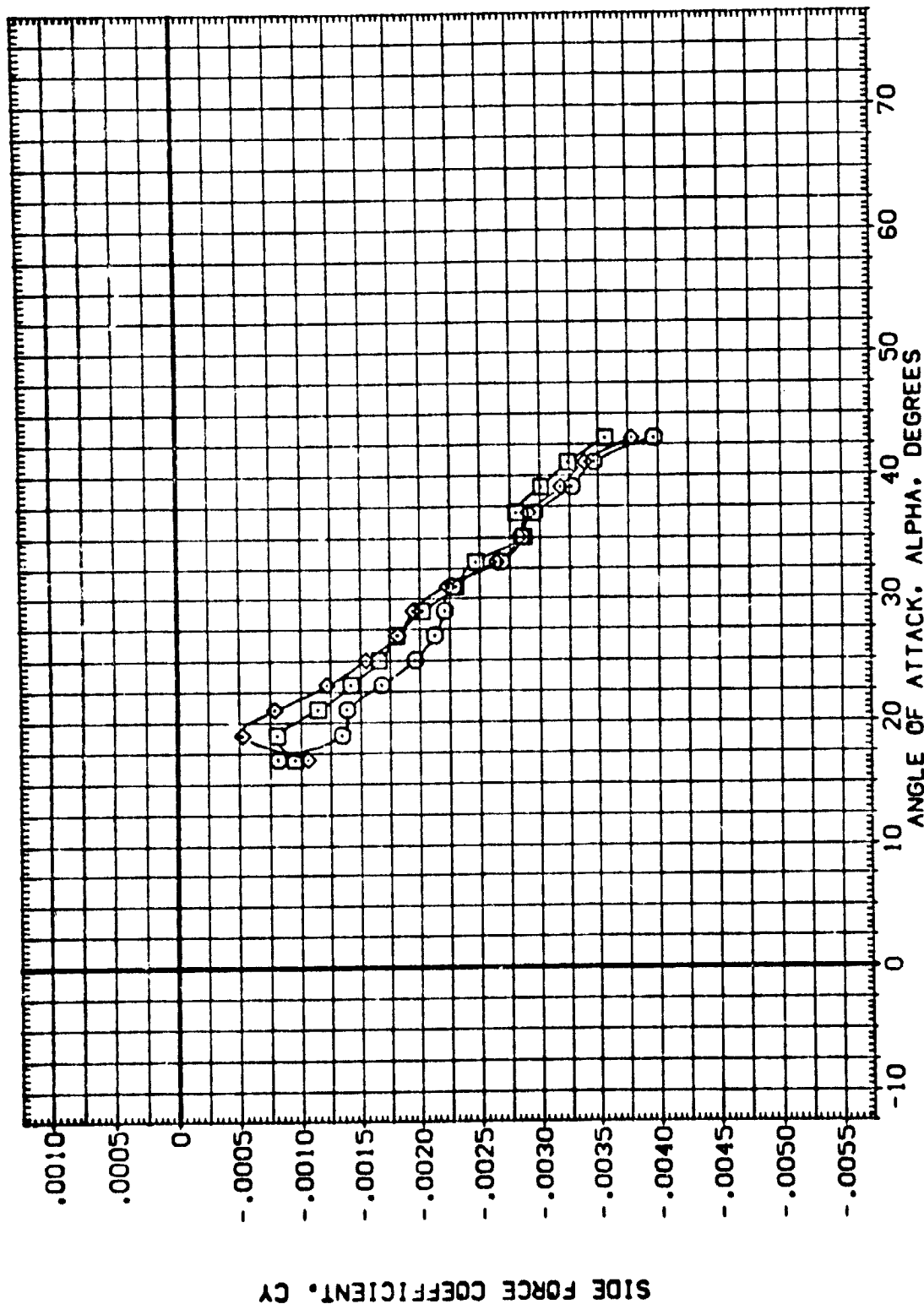


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (ATW048)    0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (ATW049)    0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (ATW049)    0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116

BOFLAP    RVL  
 -11.700    1.860  
 .000    1.860  
 16.300    1.860

REFERENCE INFORMATION

SREF    2690.0000    SQ.FT.  
 LREF    474.8100    IN.  
 BREF    936.6800    IN.  
 XMRP    1076.6800    IN.  
 YMRP    .0000    IN.  
 ZMRP    375.0000    IN.  
 SCALE    .0150

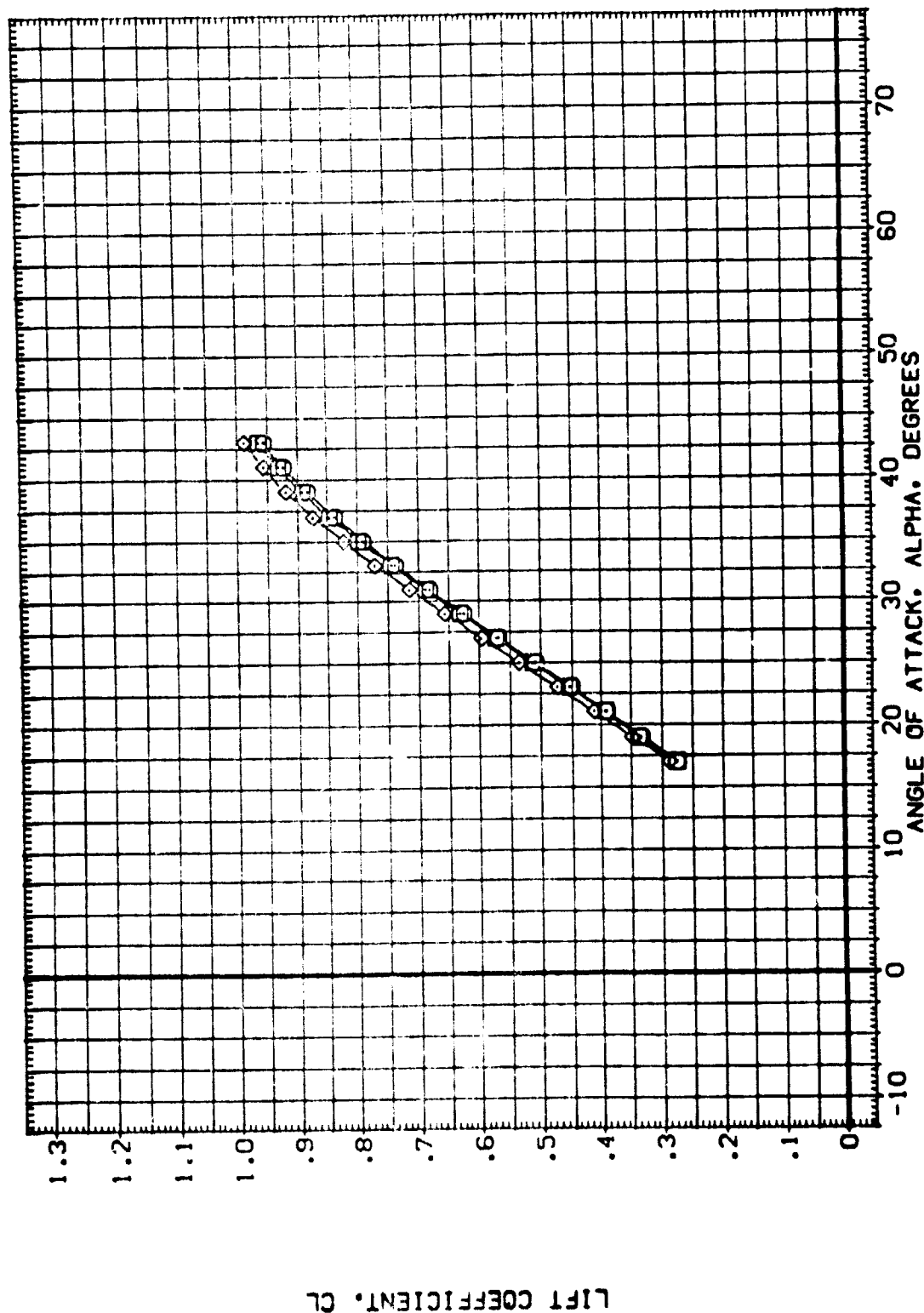


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(ATV048)    0    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

(ATV040)    1    0A79 B26 C9 E43 F8 M16 N29 R5 V8 V116

(ATV045)    2    0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

BD FLAP    RNVL

-11.700    1.860

0.000    1.860

16.300    1.860

REFERENCE INFORMATION

SREF    2690.0000    50. FT.

LREF    474.8100    IN.

BREF    936.6800    IN.

XTRP    1076.6800    IN. X0

YTRP    0.0000    IN. Y0

ZTRP    375.0000    IN. Z0

SCALE    .0150

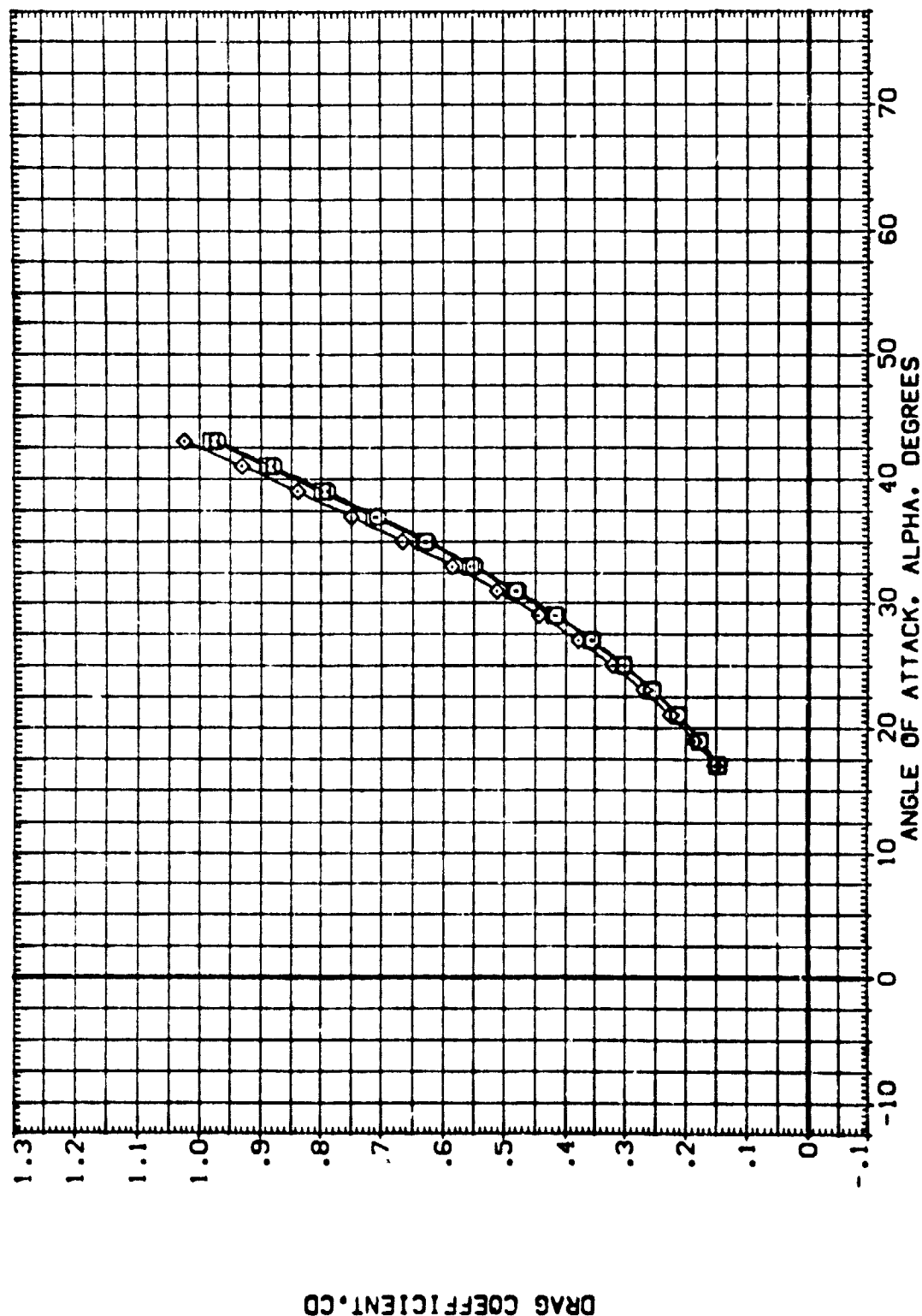


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BD FLAP	RMVL	REFERENCE INFORMATION
(ATV048)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	-11.700	1.860	SREF 2690.0000 SQ.FT.
(ATV049)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	1.860	LREF 474.8100 IN.
(ATV049)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	16.300	1.860	BREF 936.6800 IN.
				XREF 1076.0000 IN.
				YREF 375.0000 IN.
				ZREF .0150 IN.
				SCALE

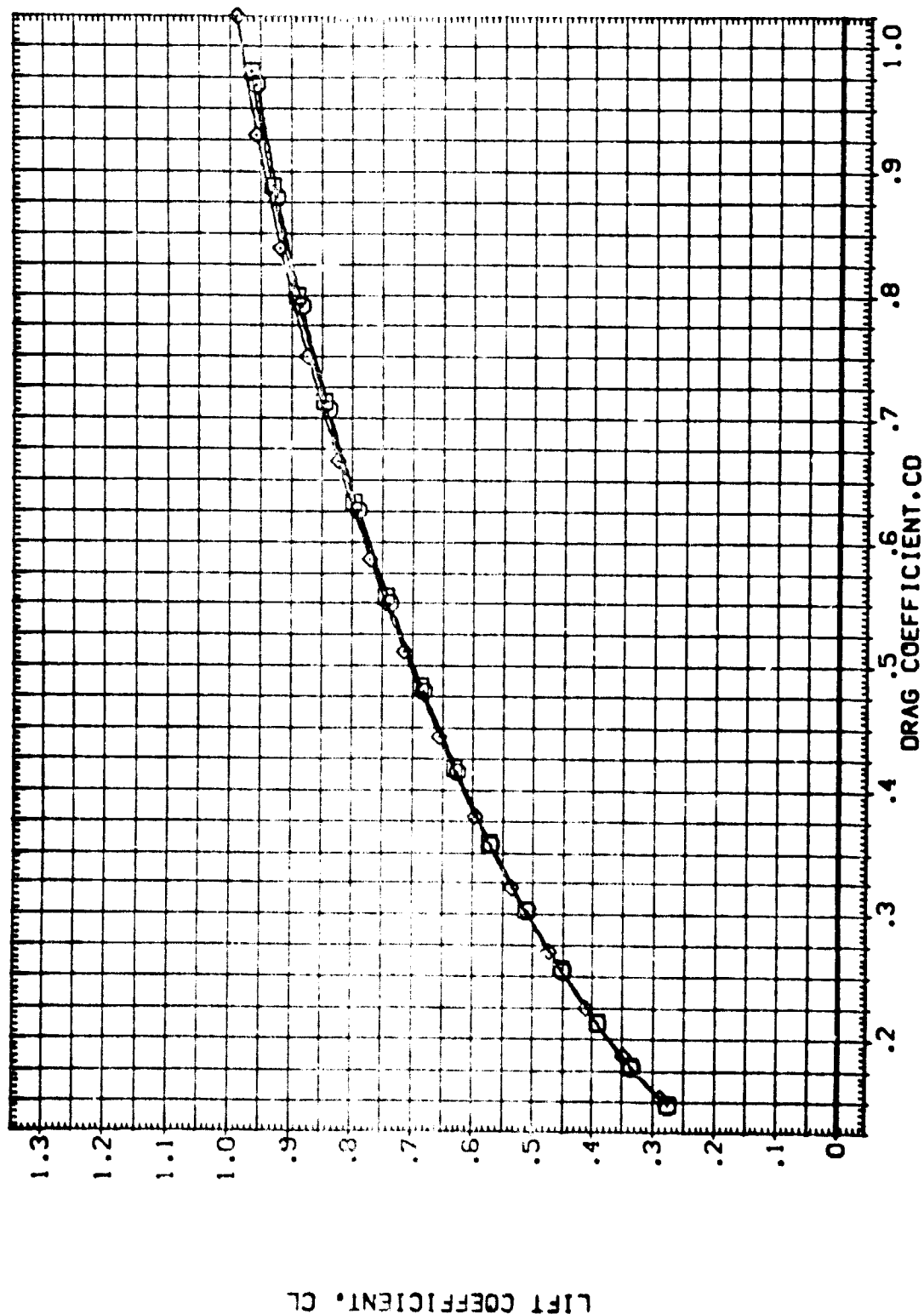


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BD FLAP	RVAL	REFERENCE INFORMATION
(ATV048)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	-11.700	1.860	SREF 2650.0000 SQ.FT.
(ATV040)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.000	1.860	LREF 474.8100 IN.
(ATV043)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	16.300	1.860	BREF 936.6800 IN.
				XTRP 1076.0000 IN.XD
				YTRP .0000 IN.YD
				ZTRP 375.0000 IN.ZD
				SCALE .0150

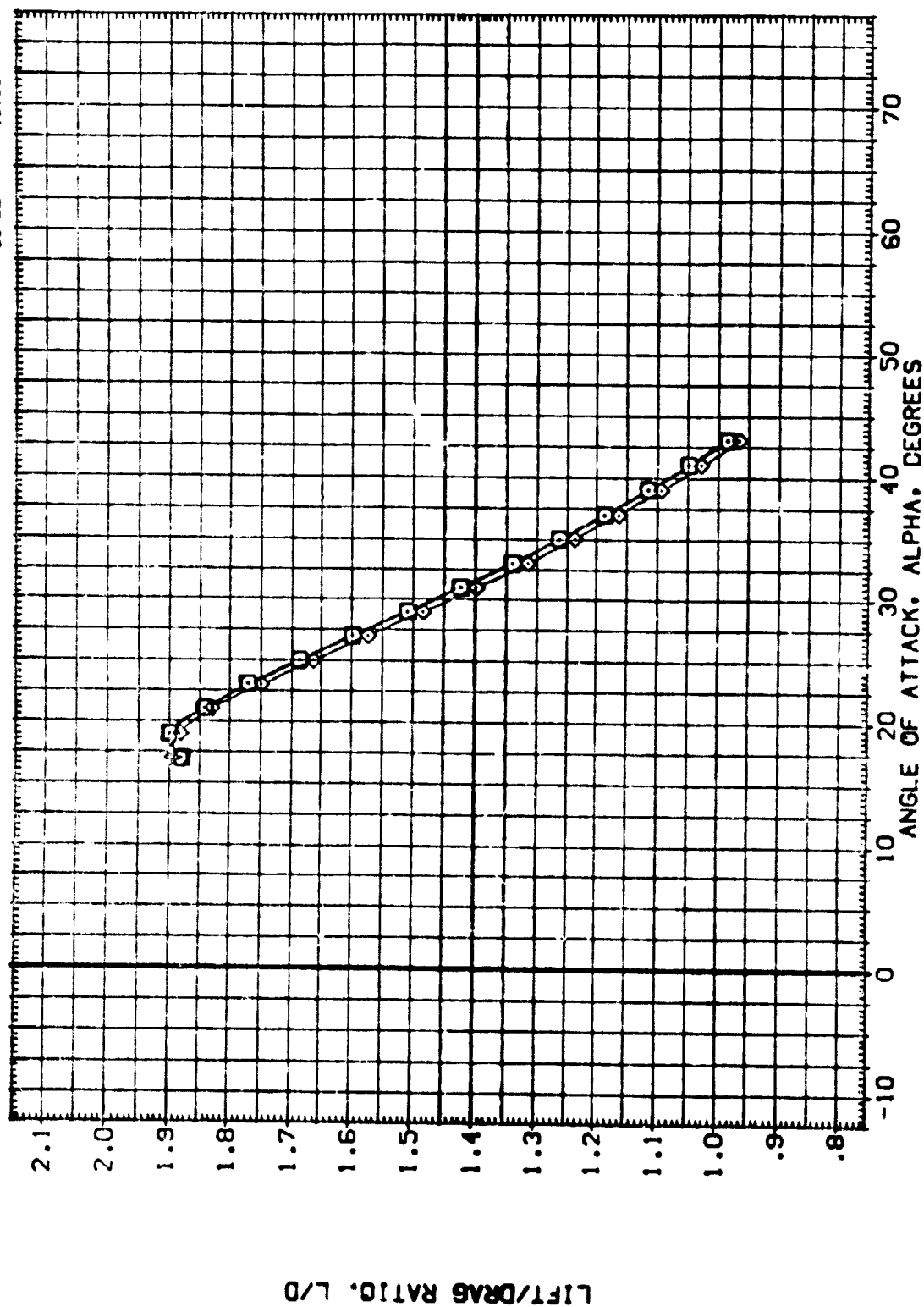


FIG. 17 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 1.86)

(A)MACH = 7.98





(DTW048)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
SQ.FT. 2570.0000  
IN. 474.8100  
IN. 936.6800  
IN. 1075.0000  
IN. 375.0000  
SCALE 10130

DATA SOURCE

.000 DATASET

.000 DTW048

.000 DTW049

.000 DTW049

PARAMETRIC VALUES

8.000 DELTA

.000 ELV-LI

.000 ELV-RI

.000 ELV-RO

.000 ELV-RO

.000 ELV-RO

.000 ELV-RO

.000 ELV-RO

.000 ELV-RO

.000 ELV-RO

.000 ELV-RO

.000 ELV-RO

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.000 ELV-RO

WACH

ELV-LI

ELV-RI

ELV-RO

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ELV-RO

ELV-RO

ELV-RO

ELV-RO

ALPHA

29.000

31.000

33.000

35.000

37.000

39.000

41.000

43.000

45.000

47.000

49.000

51.000

53.000

55.000

57.000

59.000

61.000

63.000

65.000

67.000

69.000

71.000

73.000

75.000

77.000

79.000

81.000

83.000

85.000

87.000

89.000

91.000

93.000

95.000

97.000

99.000

101.000

103.000

105.000

107.000

109.000

111.000

113.000

115.000

117.000

119.000

121.000

123.000

125.000

127.000

129.000

131.000

133.000

135.000

137.000

139.000

141.000

143.000

145.000

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INCREMENTAL NORMAL FORCE COEFFICIENT

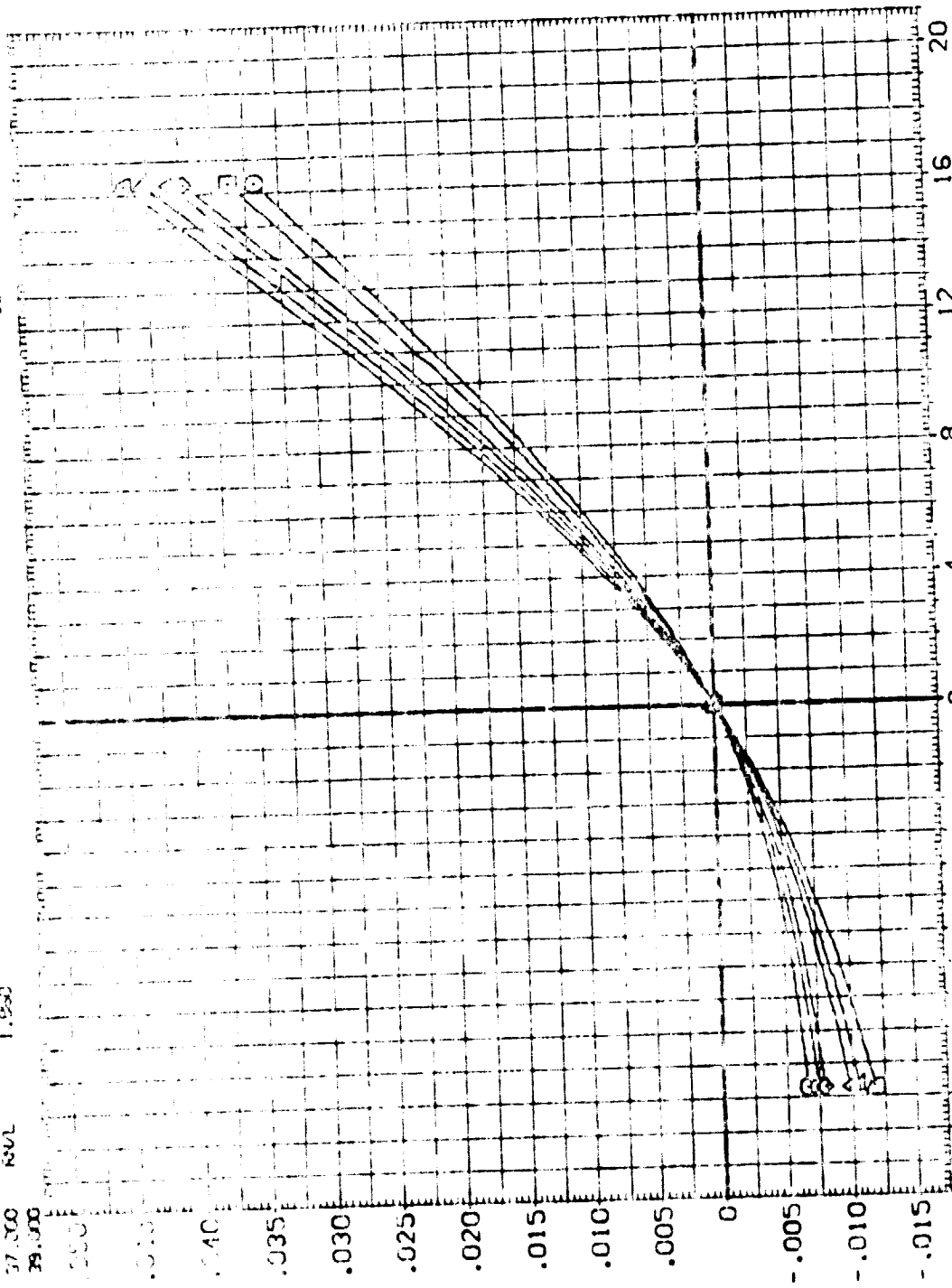


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

(DTW048)

SYMBOL

ALPHA

41.000  
43.000  
45.000

MACH  
ELV-L0  
ELV-R1  
SPUBRK  
RVNL

PARAMETRIC VALUES  
8.000 BETA  
.000 ELV-L1  
.000 ELV-R0  
55.000 RUDDER  
1.860

.000 DATASET  
.000 DTW048  
.000 DTW049  
.000

.000 DATASET  
-11.700  
16.300

DATA SOURCE  
DLBDFP  
DTW040

DLBDFP  
DTW040

DLBDFP  
DTW040

DLBDFP  
DTW040

DLBDFP  
DTW040

DLBDFP  
DTW040

DLBDFP  
DTW040

REFERENCE INFORMATION  
SREF 2650.0000 SQ.FT.  
LREF 474.9100 IN.  
BREF 936.6800 IN.  
XREF 1076.6800 IN.X0  
YREF .0000 IN.Y0  
ZREF 375.0000 IN.Z0  
SCALE .0150

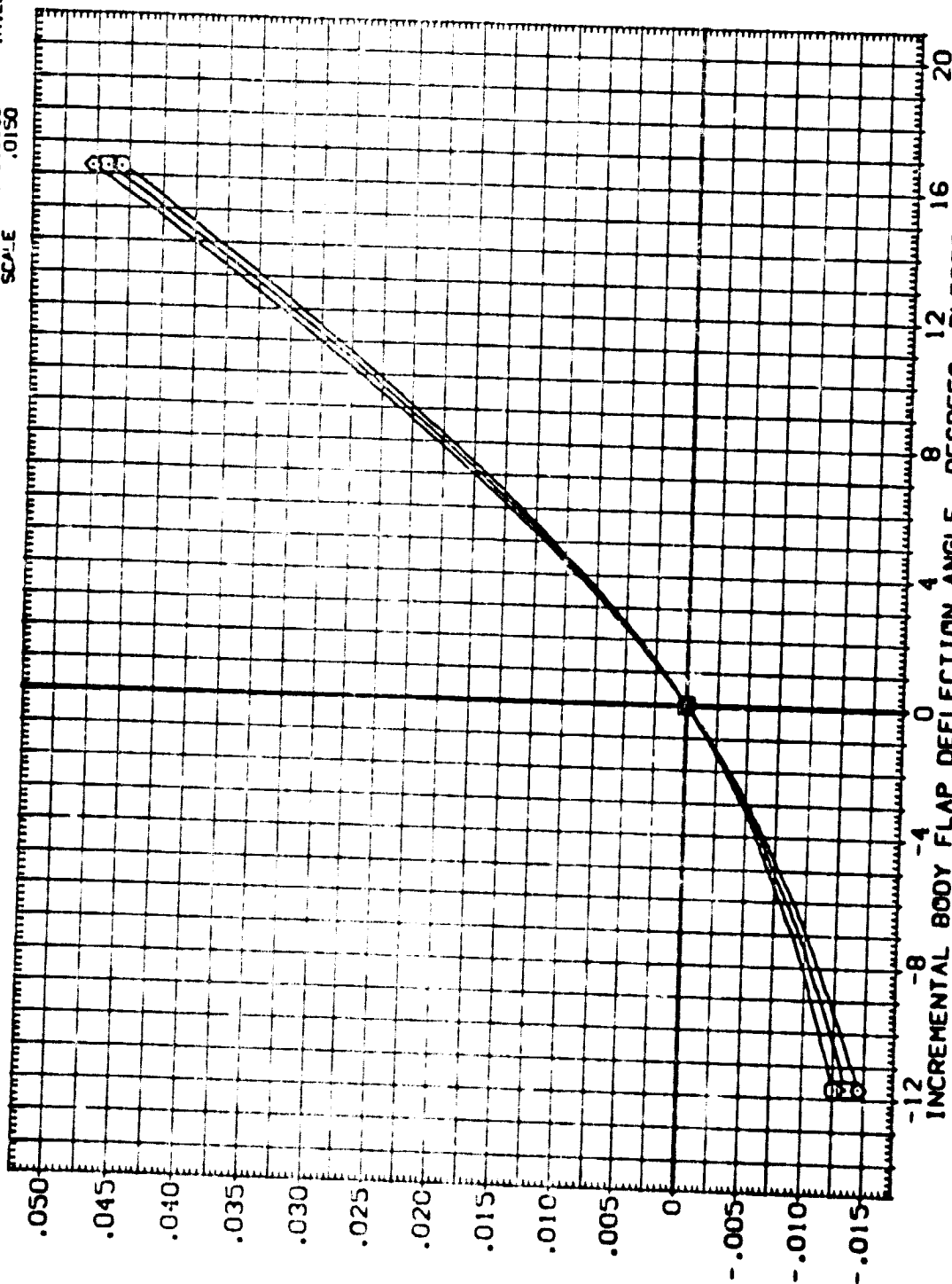


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	17.000	MACH	.000	2090.0000
1	19.000	ELV-L0	.000	474.8100
2	21.000	ELV-R1	.000	936.6800
3	23.000	ELV-R0	.000	1076.6900
4	25.000	5470K	.000	375.0000
5	27.000	RV/L	.000	375.0000
			SCALE	.0150

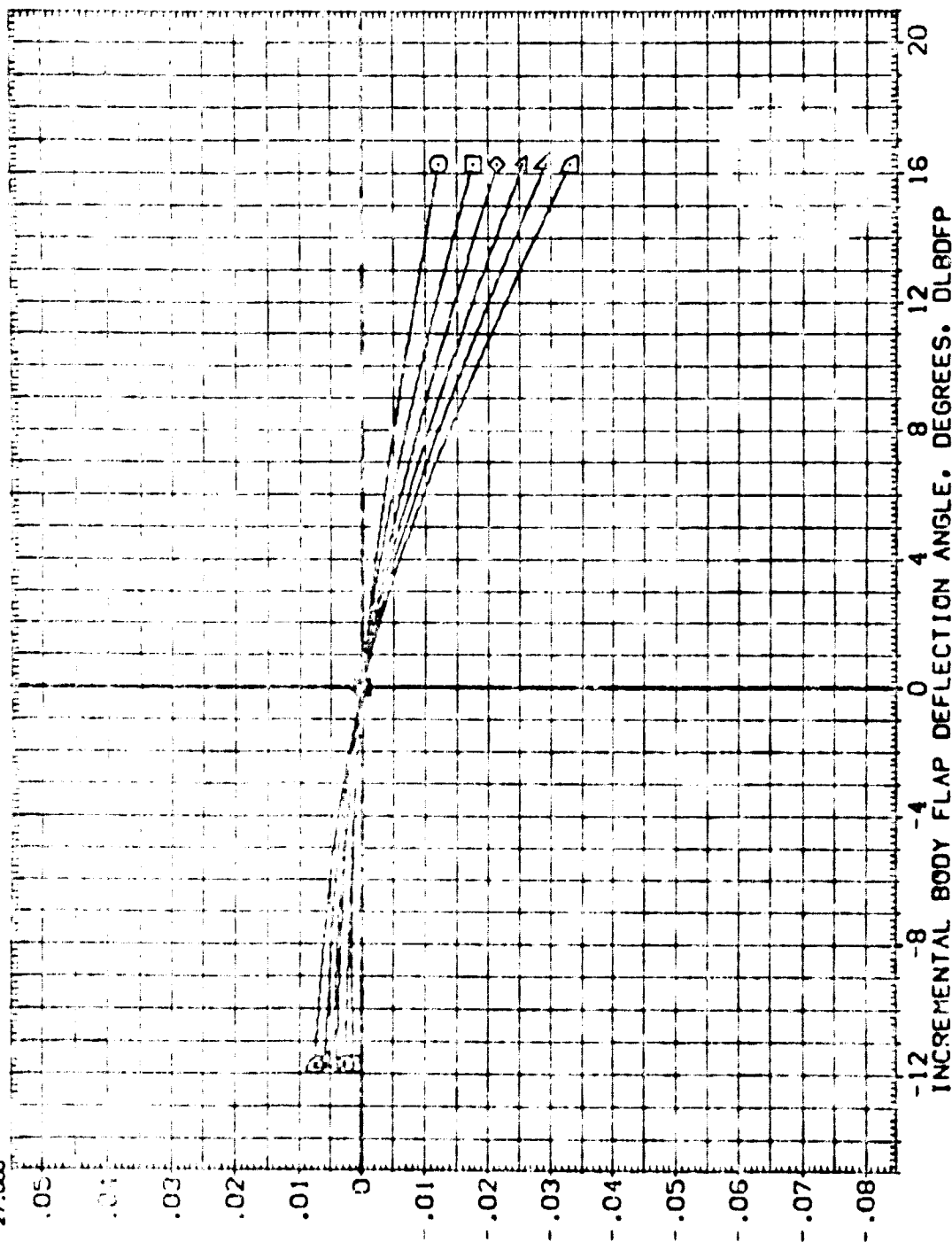


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MAOH	.000	DLBOFF	SREF	50.FT.
29.000	ELV-L0	.000	DTW048	LREF	474.8100
31.000	ELV-R1	.000	DTW048	BREF	936.6800
33.000	ELV-R1	.000	DTW048	XREF	1076.0000
35.000	SPDRK	.000		YREF	3/5.0000
37.000	P/L	.000		ZREF	.0150
39.000				SCALE	

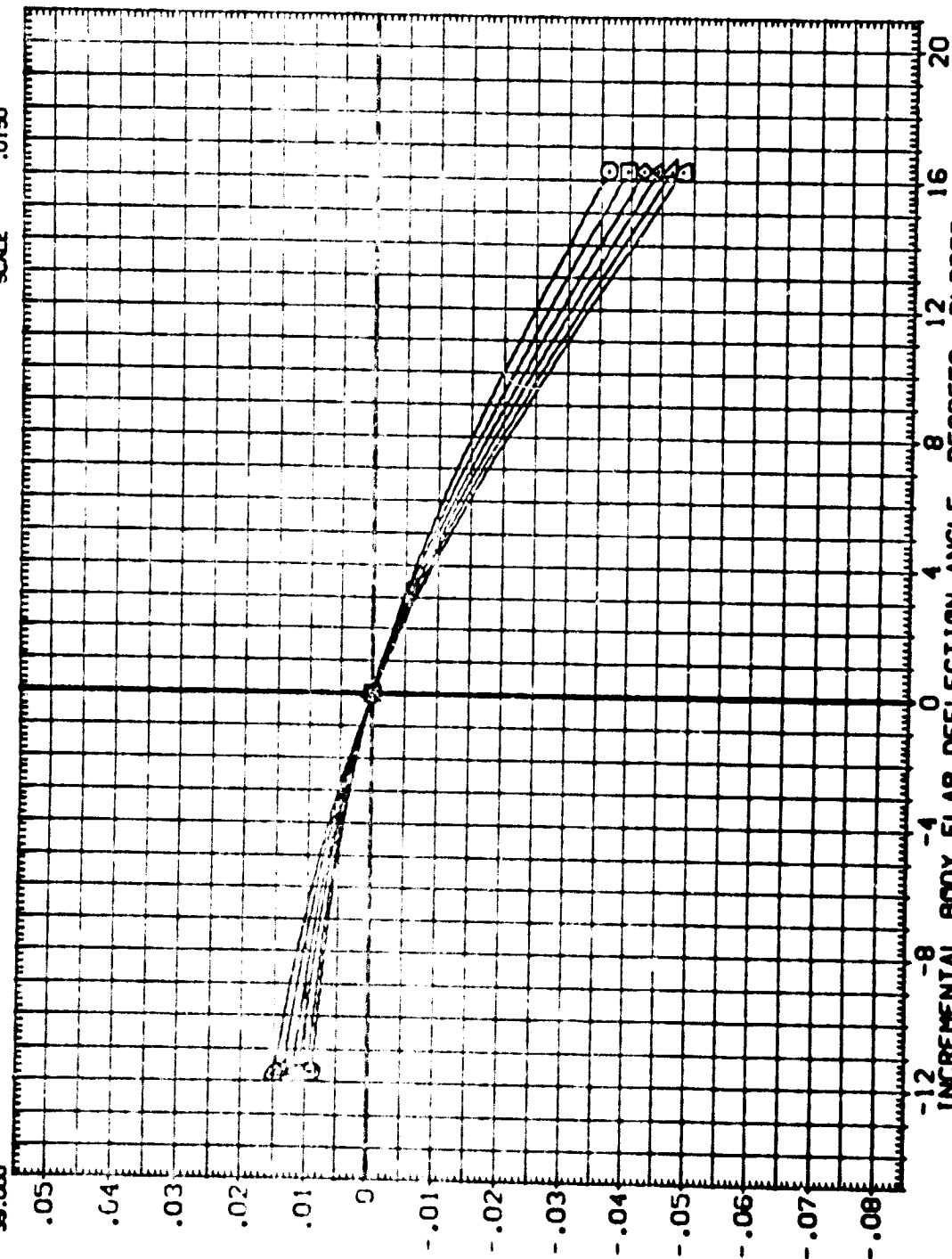


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SOURCE	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION					
ALPHA	MACH	DATASET	DLBDFP	DATASET	DLBDFP	SREF	2690.0000	SO.FT.
41.000	ELV-L0	.000	-11.700	DTW048	.000	LREF	474.8100	N.1
43.000	ELV-R1	.000	16.370	DTW028	.000	EREF	935.6800	N.2
45.000	CORRM	.000			.000	XREF	1076.6800	N.30
	SCALE	1.850				YREF	375.0000	N.10
						ZREF	214.00	N.20
						SCALE	.0150	

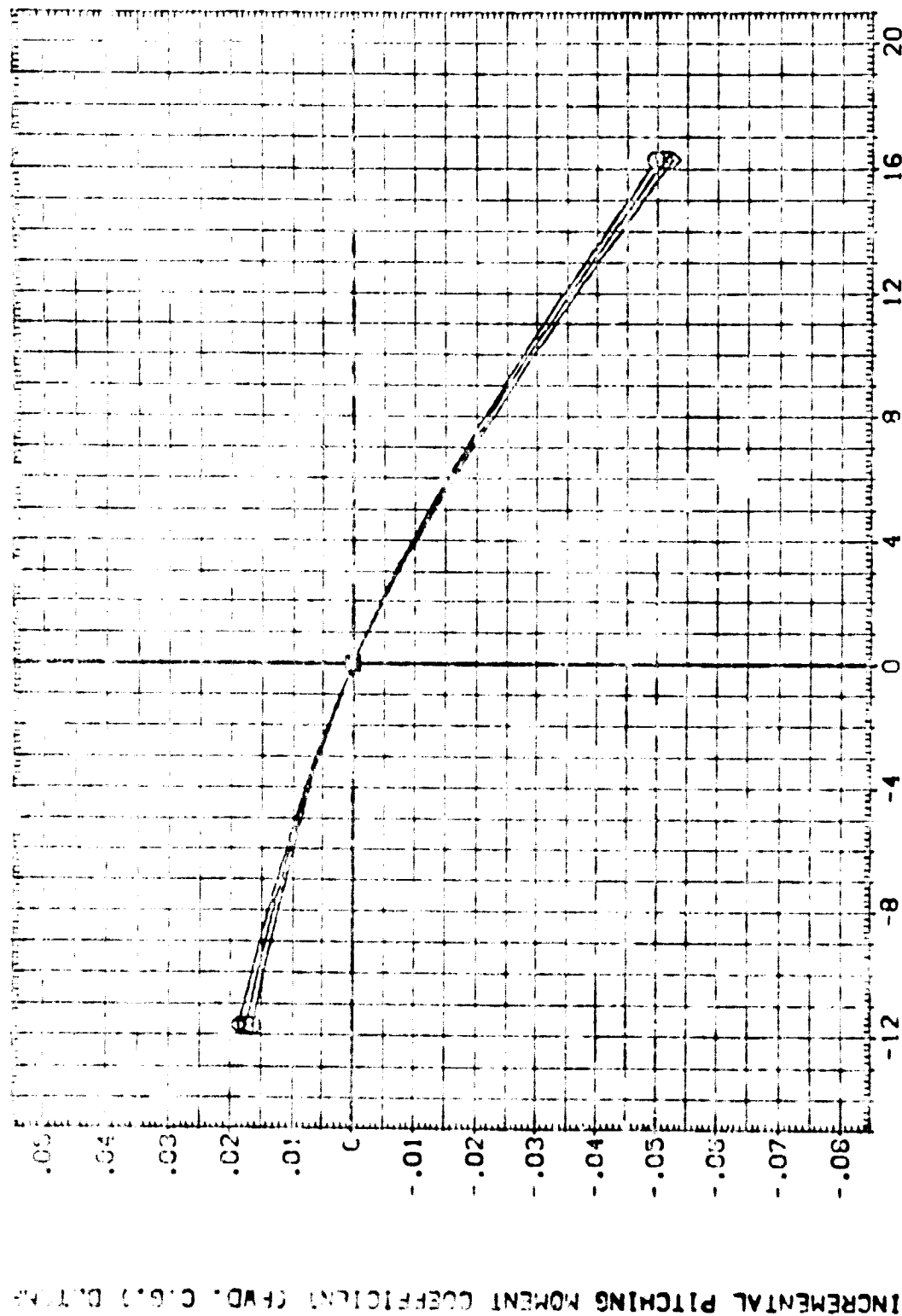


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

ORIGINAL PAGE IS  
OF BETTER QUALITY

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
17.000	MACH	.000	SREF
19.000	ELV-L0	.000	REF
21.000	ELV-R1	.000	REF
23.000	ELV-R1	.000	REF
25.000	ELV-R1	.000	REF
27.000	ELV-R1	.000	REF
	SPDRK	.000	REF
	RVL	.000	REF
	BETA	.000	REF
	ELV-L1	.000	REF
	ELV-R0	.000	REF
	RUDDER	.000	REF
	SCALE	.0150	REF

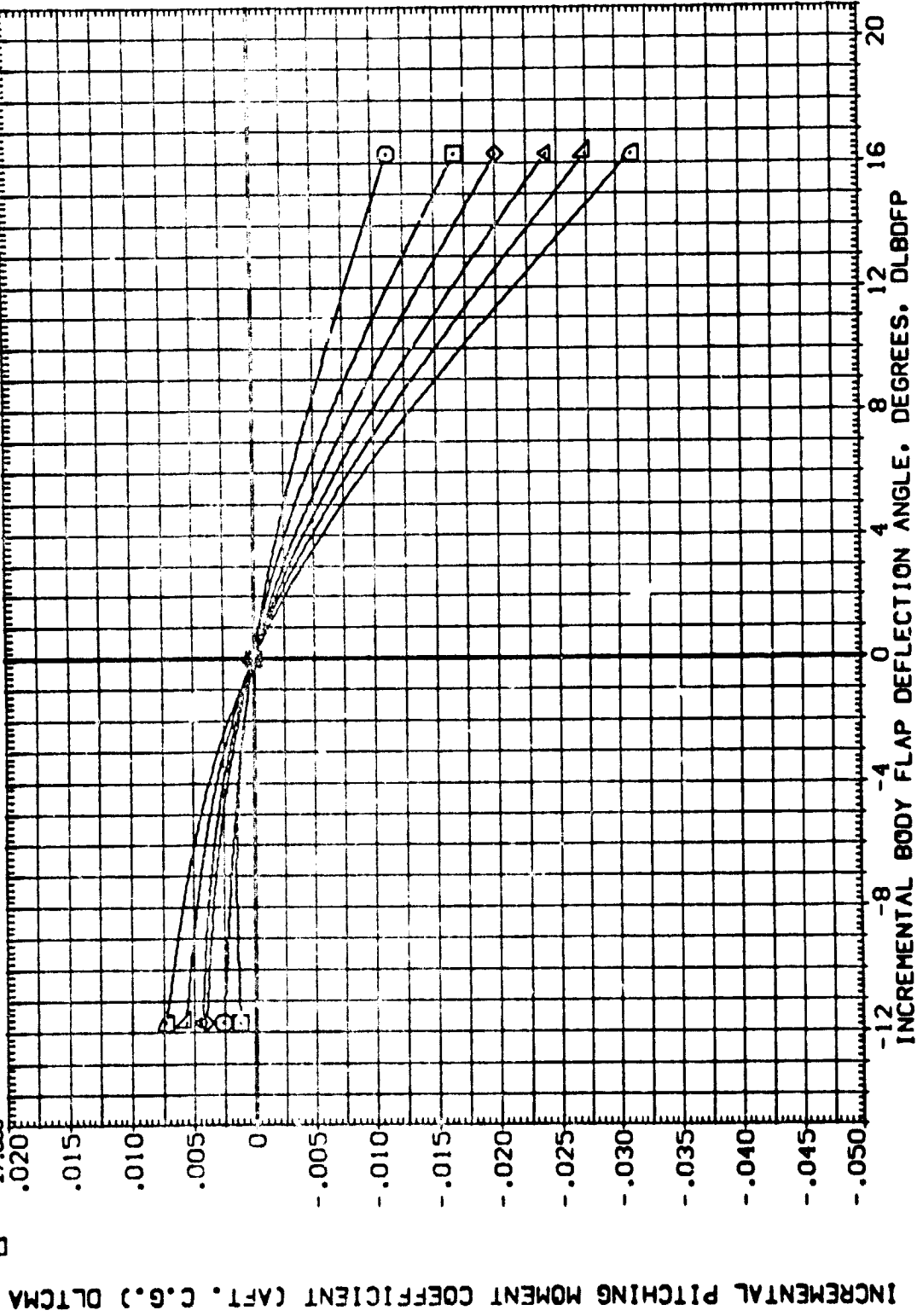


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

(DTW048)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
SQ. FT. 2690.0000  
IN. 474.8100  
IN. 936.6800  
IN. 1076.6800  
IN. 375.0000  
IN. 375.0000  
SCALE .0150

DATA SOURCE  
DLBDFP  
-11.700  
16.300

PARAMETRIC VALUES  
BETA  
ELV-LI  
ELV-RD  
ELV-RD  
RUDDER  
1.660

ALPHA  
29.000  
31.000  
33.000  
35.000  
37.000  
39.000

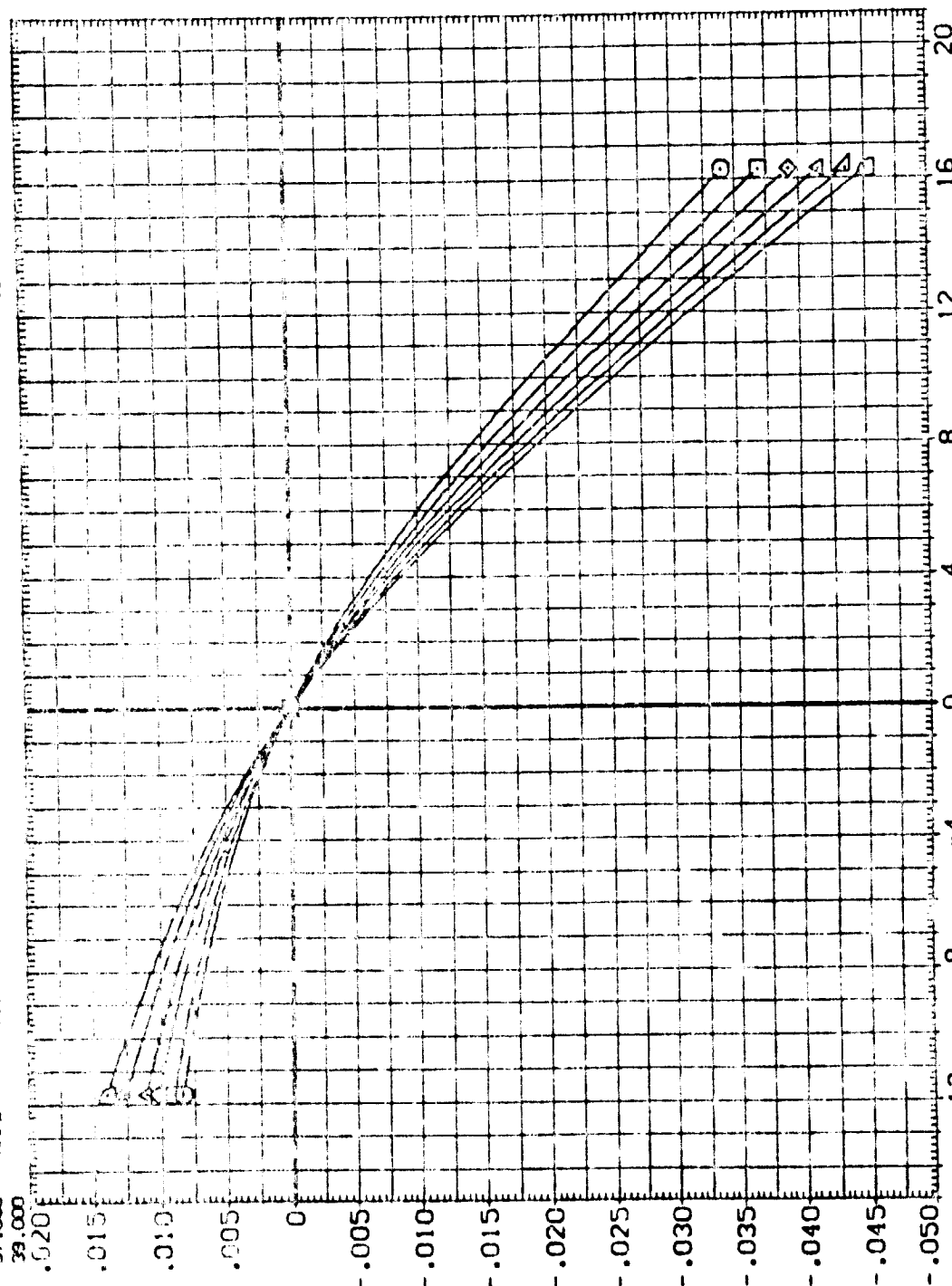


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.36)



0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL  
○  
□  
◇

ALPHA  
41.000  
43.000  
45.000

MACH  
ELV-L0  
ELV-R1  
SPOBRK  
RWL

PARAMETRIC VALUES  
8.000 BETA  
.000 ELV-L1  
.000 ELV-R0  
55.000 RUDDER  
1.860

DATA SOURCE  
.000 DATASET  
.000 DTW048  
.000 DTW049  
.000

DLBDFP  
-11.700  
16.300

DATASET  
DTW040

DLBDFP  
.000

REFERENCE INFORMATION  
2690.0000 SQ.FT.  
474.8100 IN.  
936.6800 IN.  
1076.6800 IN.  
XPRP .0000 IN.  
YPRP .0000 IN.  
ZPRP .0000 IN.  
375.0000 IN.  
SCALE .0150

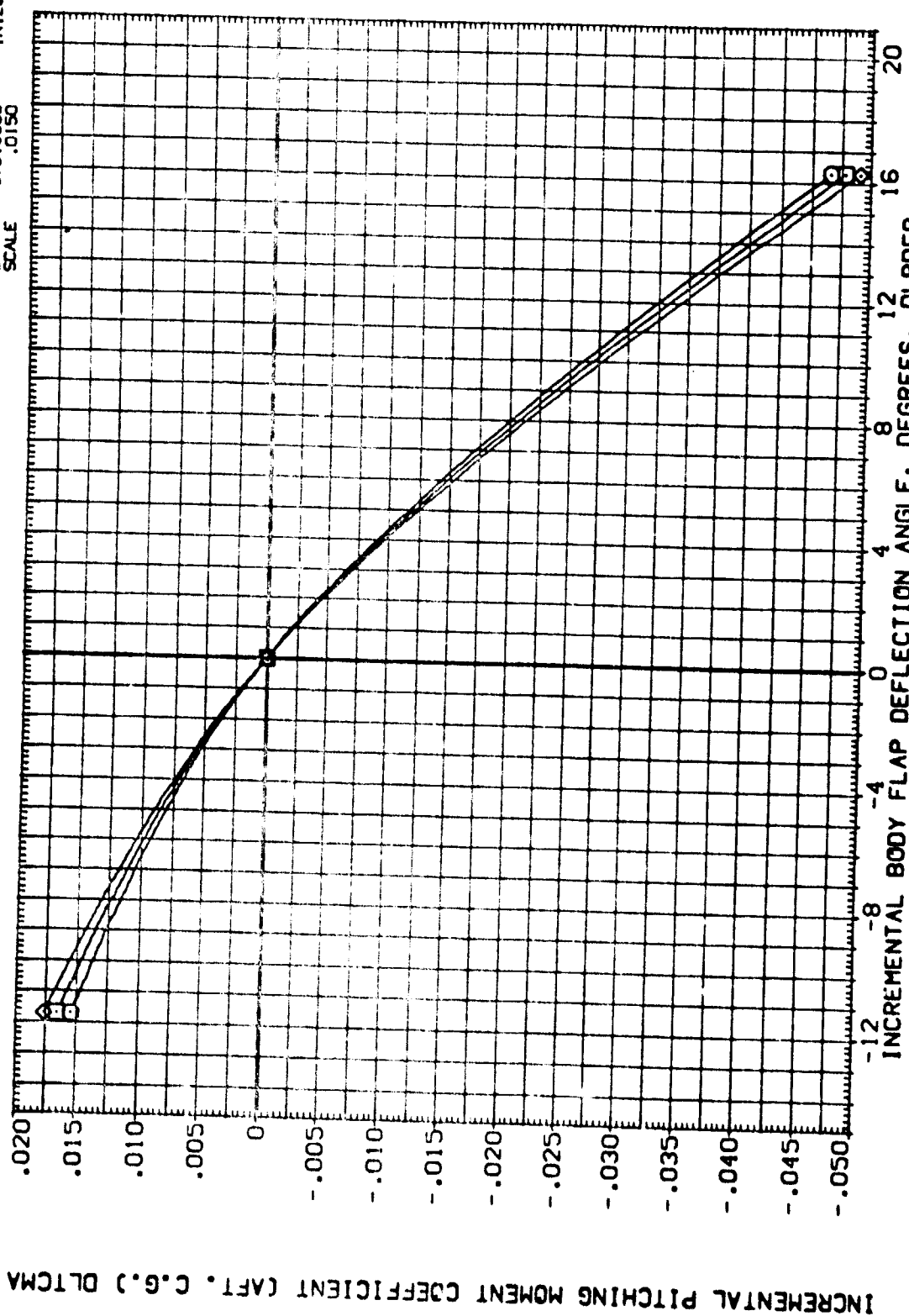


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
17.000	MACH	.000	2690.0000
13.000	ELV-LC	.000	474.8100
21.000	ELV-RI	.000	955.5000
23.000	ELV-RO	.000	1676.6800
25.000	5F-DBP	.000	375.0000
27.000	REV	.000	375.0000
			SCALE
			.0150

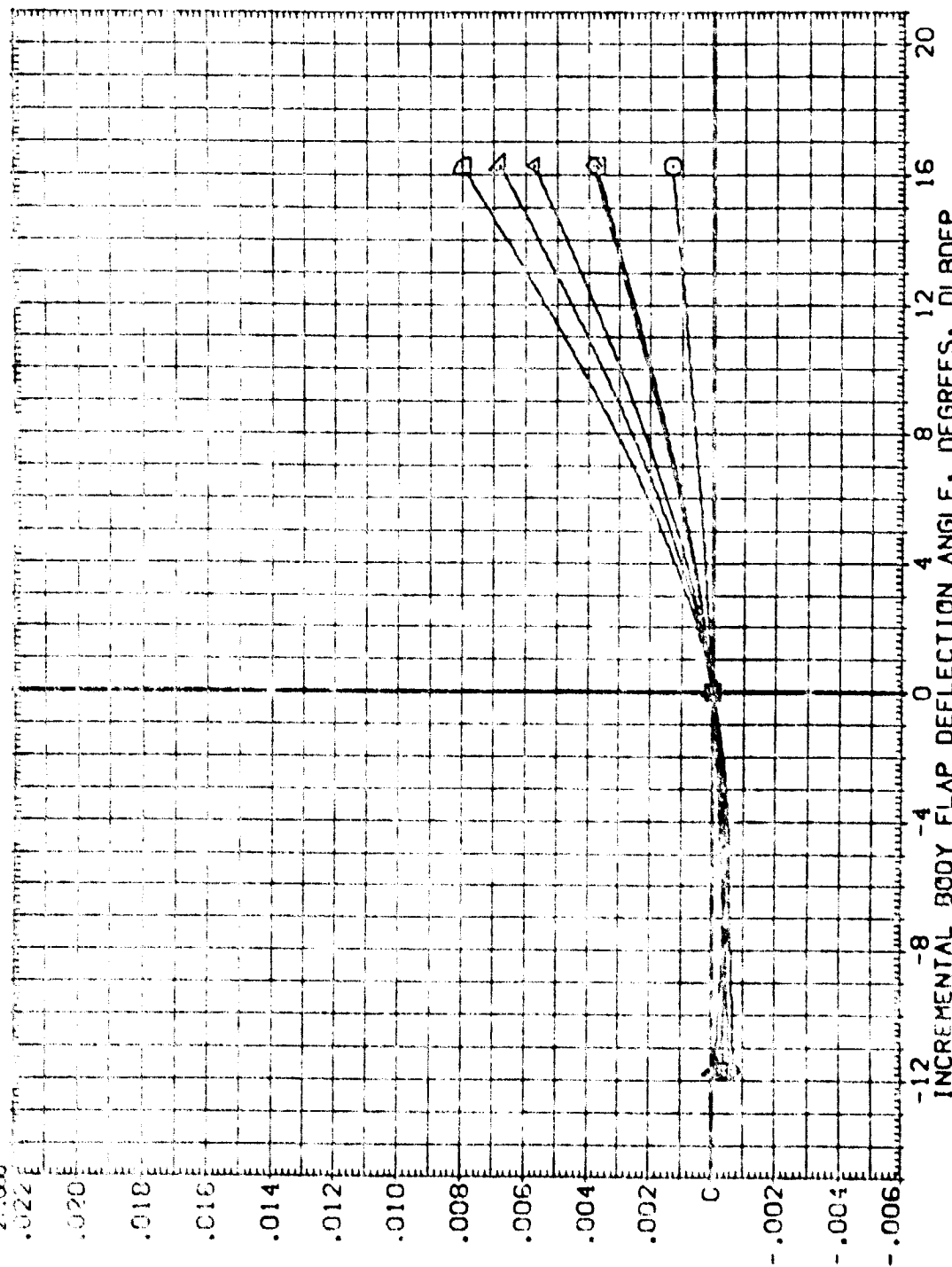


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

(DTW048)

**SINUS**

**ALPHA**  
**29.000**  
**31.000**  
**33.000**  
**35.000**  
**37.000**  
**39.000**

MACH  
ELV-LO  
ELV-RI  
SPDRKX  
RNL

PARAMETRIC VALUES	
BETA	8.000
ELV-LI	.000
ELV-RO	.000
RUDDER	55.000
	1.860

000	DATASET
000	DTVD49
000	DTVD49
000	

DATA SOURCE  
CLBOFP  
-11.700  
16.300

DIV040      DLBDFP      .000

SCALE  
ZMP  
YMP  
XMP  
BREF  
LREF  
SREF

REFERENCE INFORMATION	50 FT.
2690.0000	IN.
474.8100	IN.
936.6800	IN.X0
1076.6800	IN.Y0
.0000	IN.Z0
375.0000	
.0150	

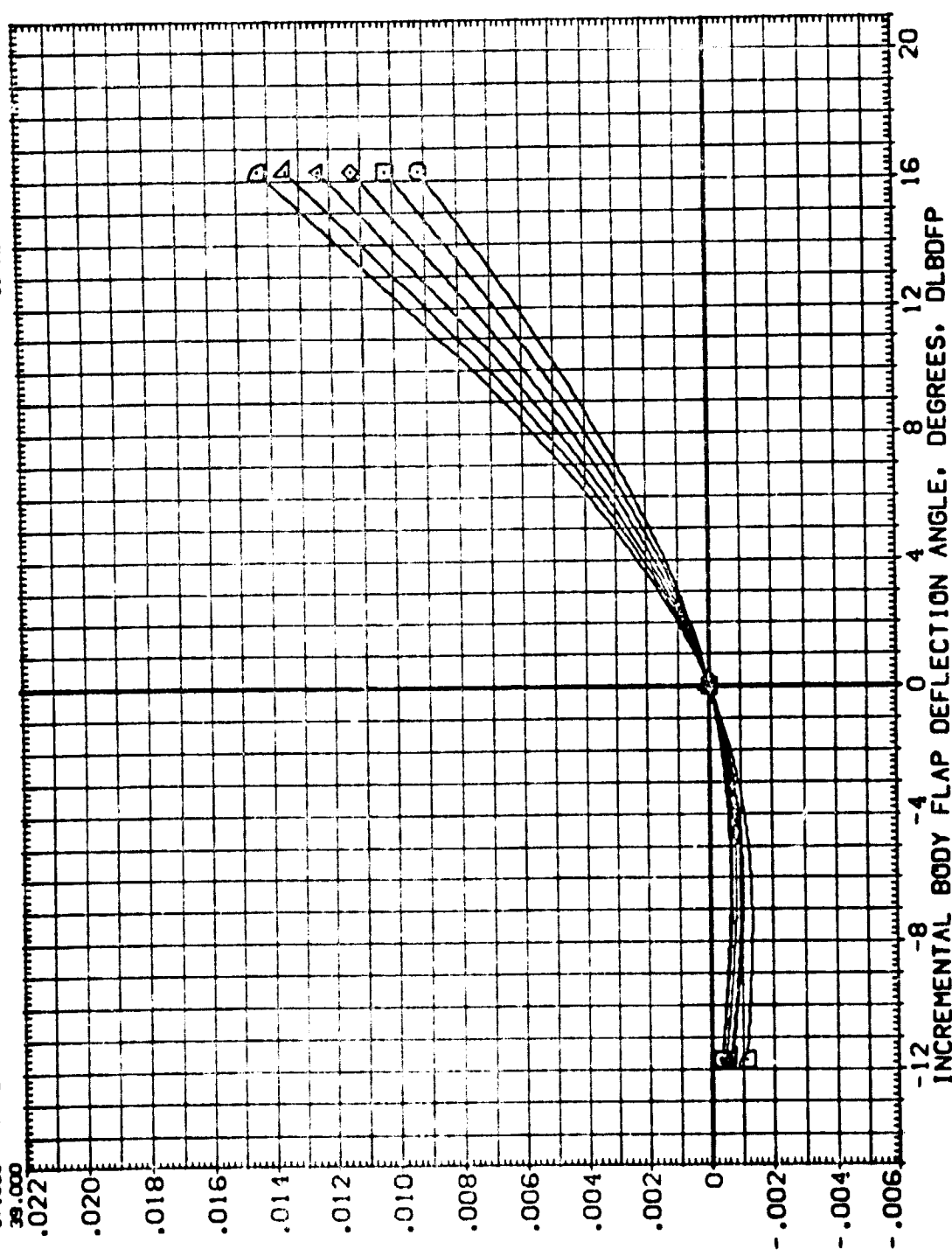


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 1.86)

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLBDFP	DATA SET	DLBDFP	SREF	REFERENCE INFORMATION
○	41.000	ELV-L0	8.000	BETA	.000	DTW048	.000	DTW040	2650.0000	50.FT.
□	43.000	ELV-R1	.000	ELV-L1	.000	DTW049	-11.700		474.8100	IN.
◇	45.000	ST08RK	.000	ELV-R0	.000		16.300		936.6800	IN.
		RVL	25.000	RUDDER	.000				1076.6800	IN. X0
			1.860						375.0000	IN. Y0
									375.0000	IN. Z0
									SCALE	.0150

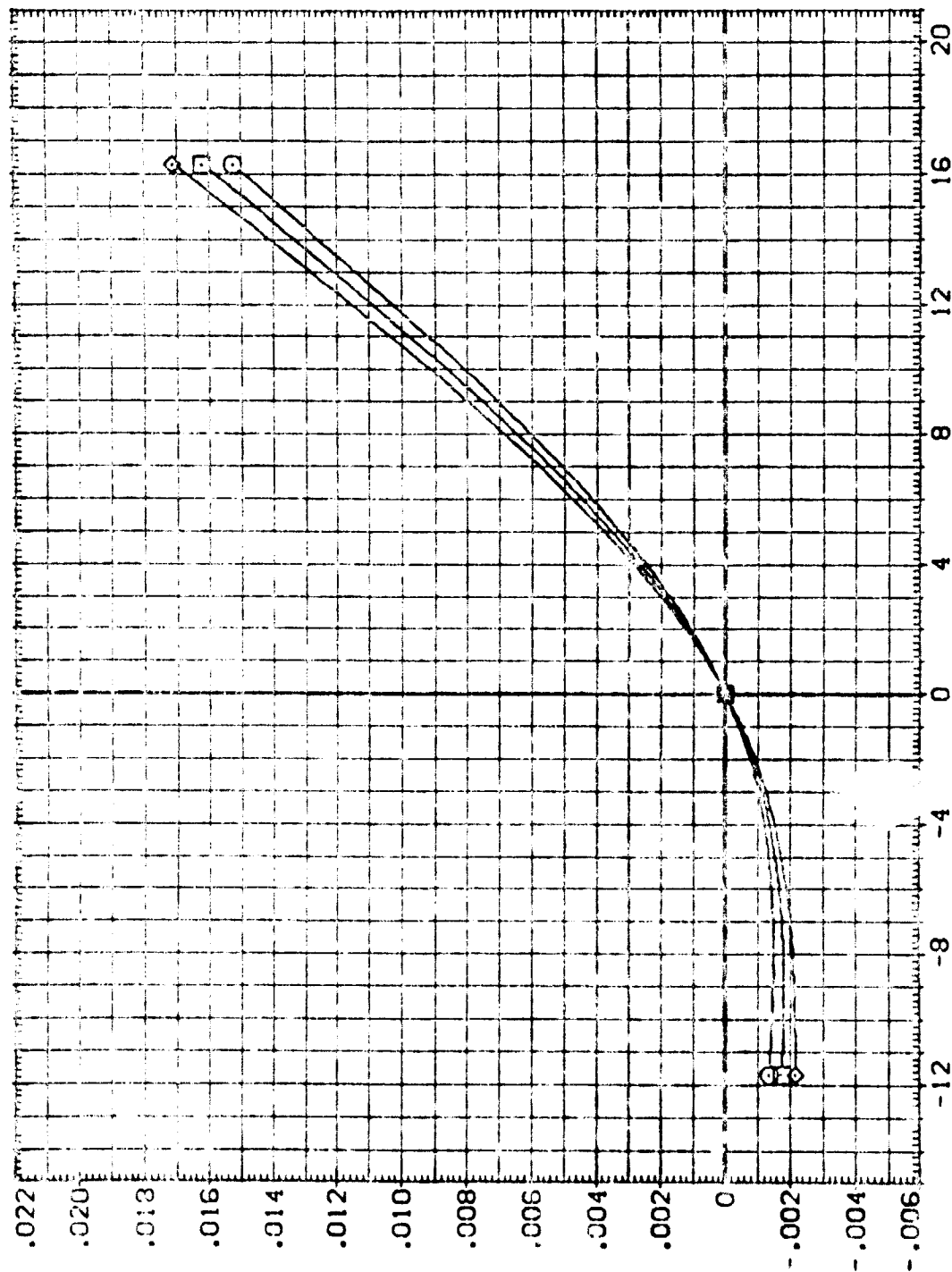


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C3 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	17.000	MACH	.000	2690.0000 SO.FT.
◇	19.000	ELV-L0	.000	474.8100 IN.
△	21.000	ELV-R1	.000	936.6800 IN.
▽	23.000	SPDRK	.000	1076.8 30 IN.X0
◇	25.000	RVL	.000	375.0000 IN.Y0
▽	27.000	RVL	.000	375.0000 IN.Z0
	.022	BETA	.000	SCALE .0150
	.020	ELV-L1	.000	
	.018	ELV-R0	.000	
	.016	RUDER	.000	
	.014			
	.012			
	.010			
	.008			
	.006			
	.004			
	.002			
	0			
	-.002			
	-.004			
	-.006			

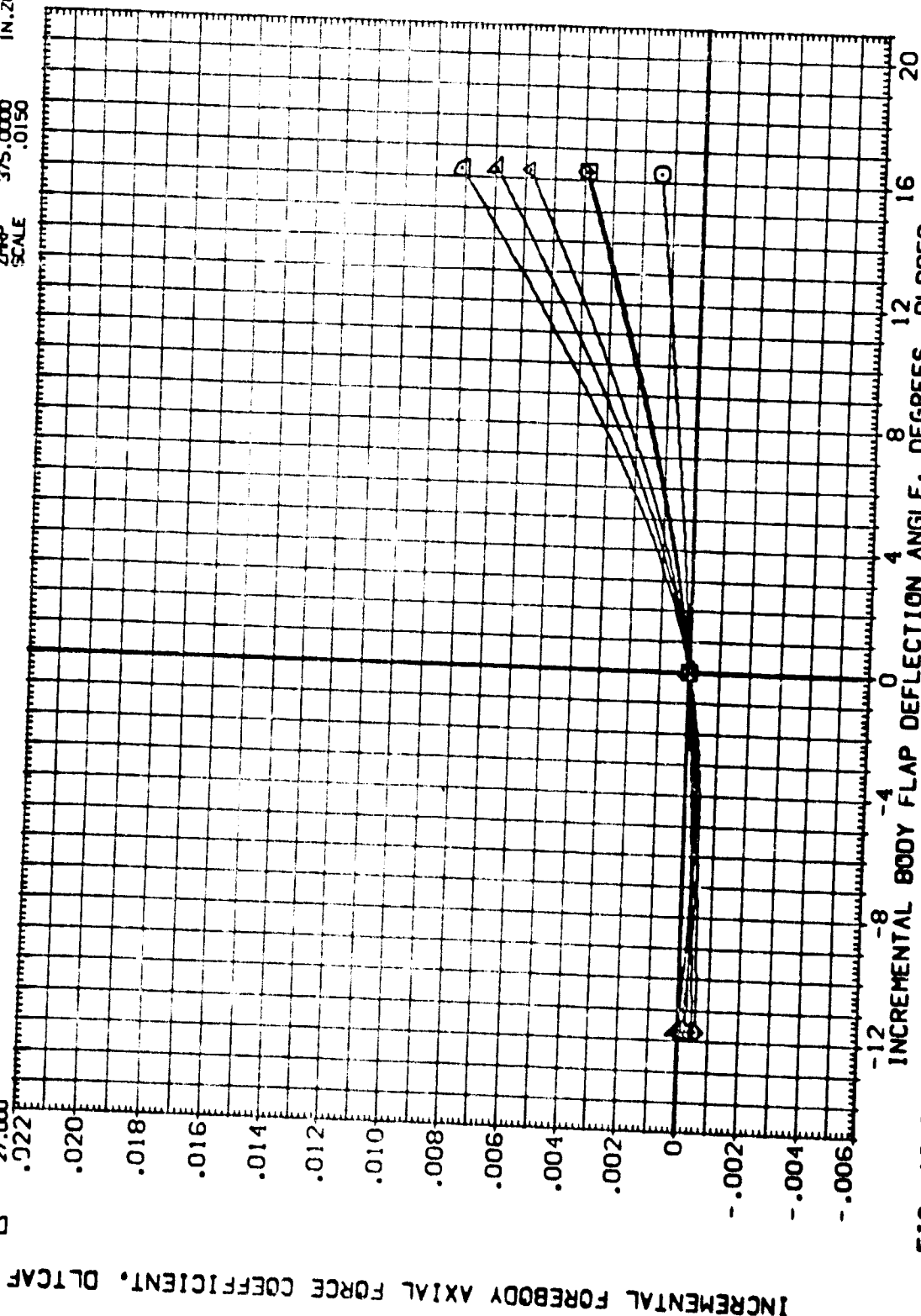


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

(DTWC48)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
 SREF 2690.0000 SQ.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 AREF 1076.6400 IN.  
 YREF 375.0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

DATA SOURCE

DLBDFP  
 DTWC48  
 DTWC48  
 DTWC48  
 DTWC48

PARAMETRIC VALUES

BETA  
 ELV-L1  
 ELV-R1  
 ELV-R2  
 RFLDER  
 RFL

WACH  
 ELV-L0  
 ELV-R0  
 ELV-R1  
 ELV-R2  
 RFL

ALPHA  
 29.000  
 31.000  
 33.000  
 35.000  
 37.000

SYMBOL  
 ○  
 ◇  
 △  
 ▲  
 ▼

INCREMENTAL FOREBODY AXIAL FORCE COEFFICIENT, DLBDFP

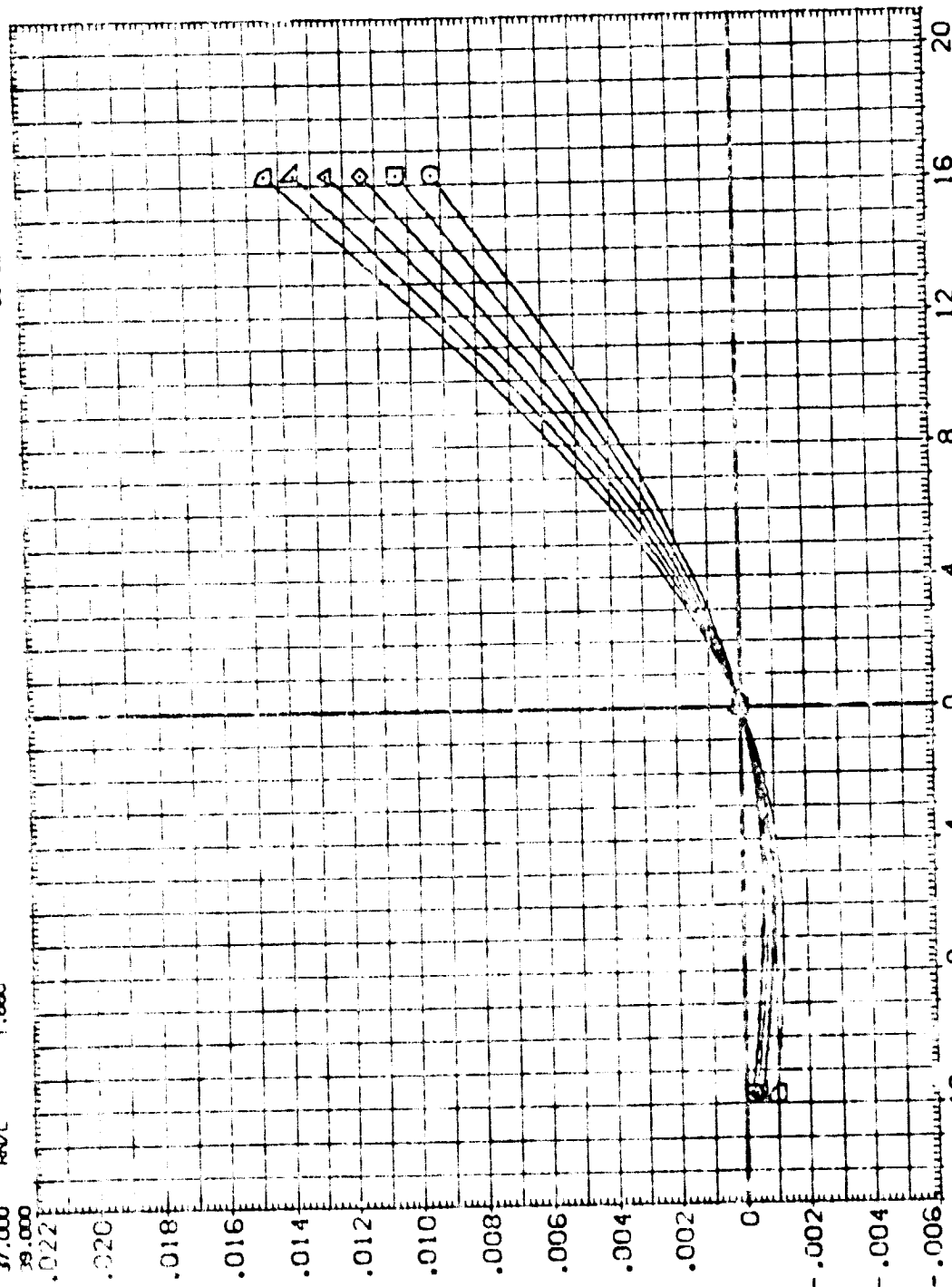


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

(DTW048)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
 SQ.FT. 2690.0000  
 IN. 474.8170  
 IN. 325.2800  
 IN. X3 1076.6900  
 IN. Y3 375.0000  
 IN. Z3 375.0000  
 SCALE .0150

DATA SOURCE

DLBOFP  
 DTW048  
 DTW048  
 DTW048

PARAMETRIC VALUES

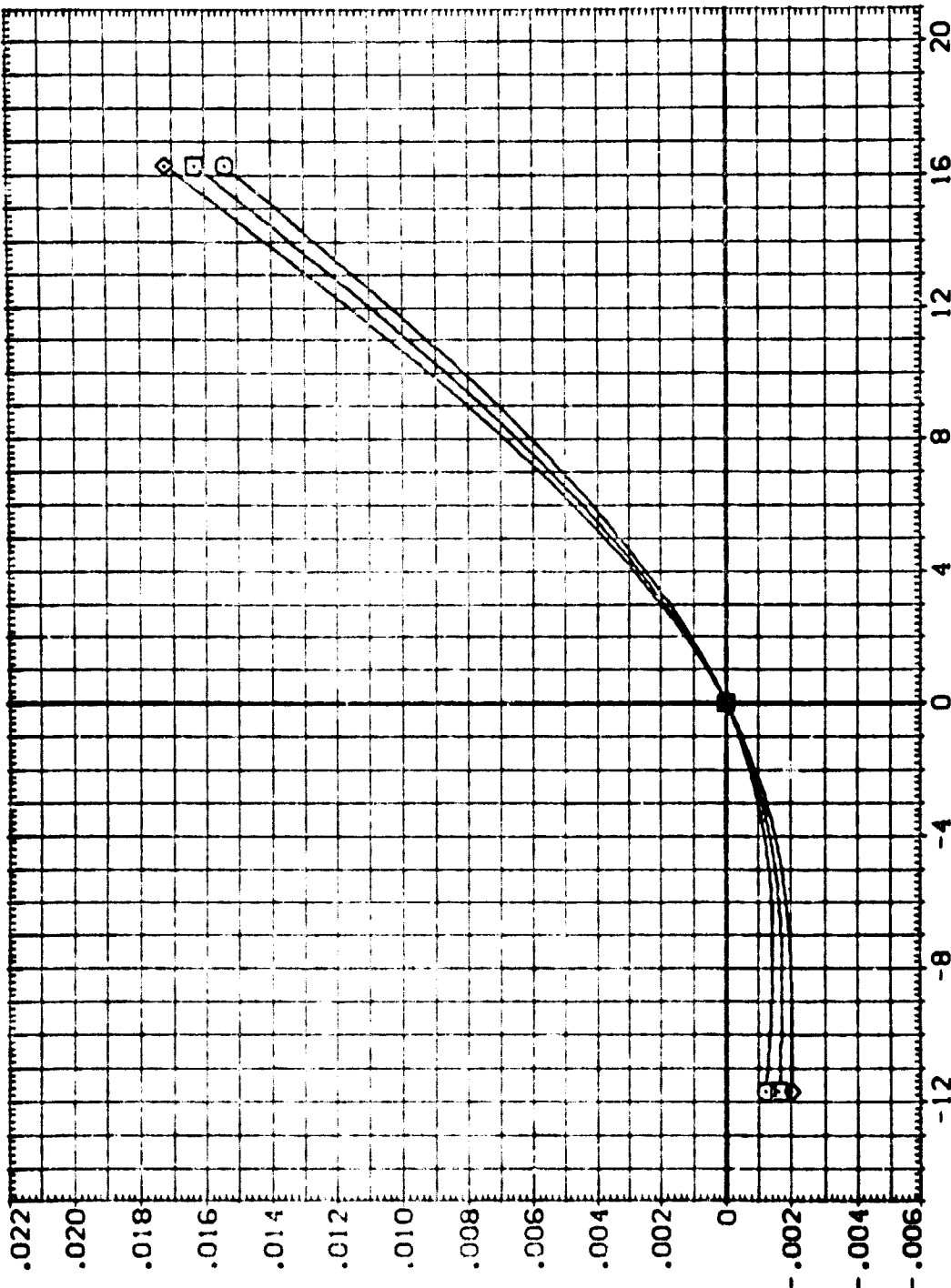
BETA  
 ELV-L1  
 ELV-R1  
 ELV-R2  
 RUDDER  
 RNL 1.850

ALPHA

41.000  
 43.000  
 45.000

SYMBOL

○  
 □  
 ◇



INCREMENTAL FOREBODY AXIAL FORCE COEFFICIENT, DLTCAF

FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL	ALP-4	MACH	PARAMETRIC VALUES	.000	DATASET	DLBDFP	REFERENCE INFORMATION
○	17.000	ELV-L0	BETA	.000	DTW048	.000	2650.0000 SO.FT.
□	19.000	ELV-L1	ELV-L1	.000	DTW049	.000	474.8100 IN.
◇	21.000	ELV-R1	ELV-R0	.000			956.6800 IN.
△	23.000	SPOBKK	RUDDER	.000			1076.6800 IN.
▽	25.000	RVL					375.0000 IN.
○	27.000						375.0000 IN.
							SCALE .0150

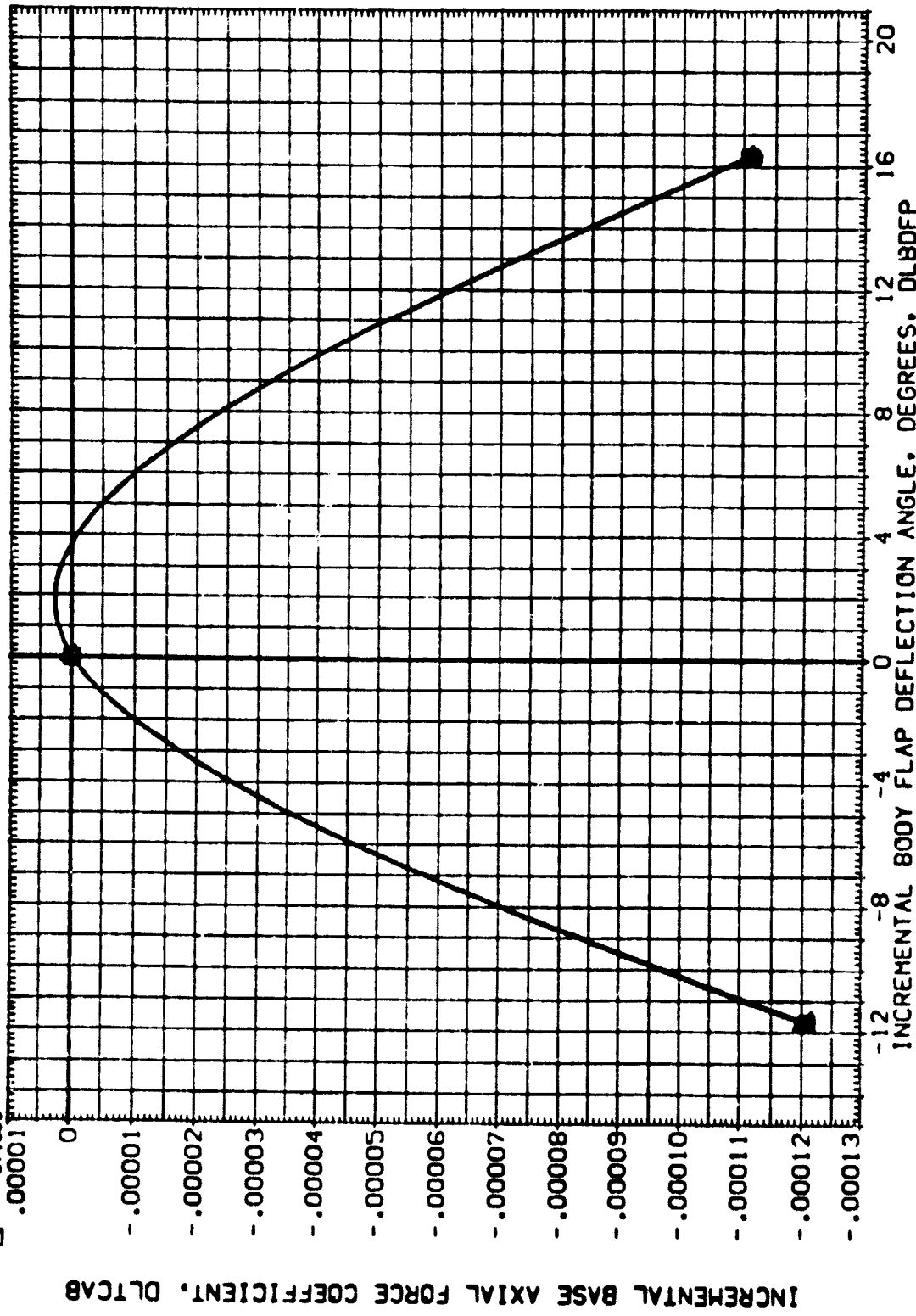


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)





(DTW048)

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL		ALPHA		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
O	□	41.000	43.000	MAOH	.000	DLBDFP	.000	SREF	2690.0000
				ELV-L0	.000	DTW048	.000	LREF	474.8100
				ELV-R1	.000	DTW049	.000	BREF	936.6800
				ELV-R2	.000	DTW049	.000	XREF	1076.8700
◇	◇	45.000	45.000	MAOH	.000	DLBDFP	.000	YREF	375.0000
				ELV-L0	.000	DTW048	.000	ZREF	375.0000
				MAOH	.000	DLBDFP	.000	SCALE	.0150

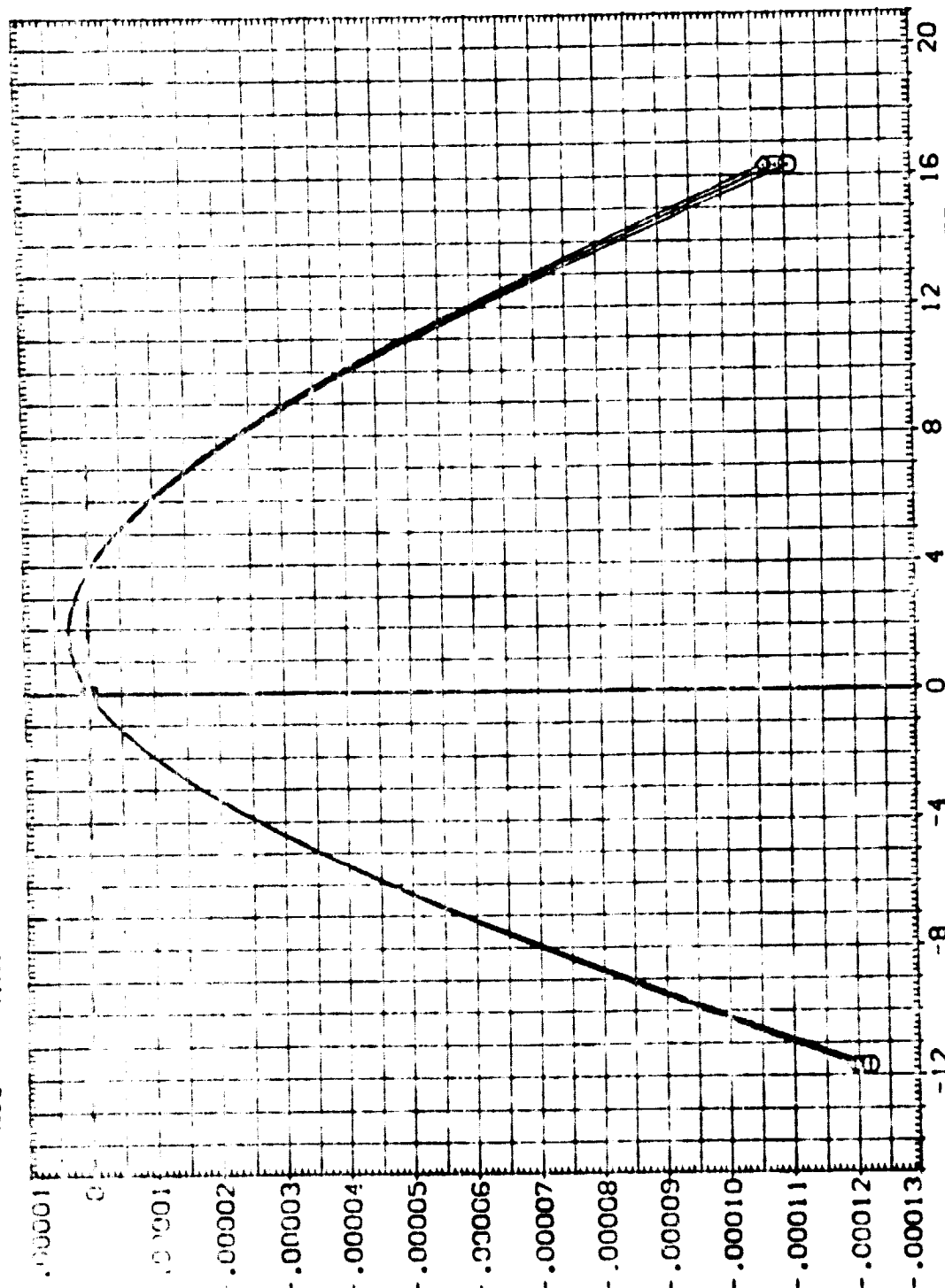


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (OTW048)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	17.000	MACH	0.000	BETA	0.000	SREF	2690.0000
	19.000	ELV-L0	.000	ELV-L1	.000	UREF	474.8100
	21.000	ELV-R1	.000	ELV-R0	.000	EXREF	936.6800
	23.000	SI-CORR	55.000	RUDER	.000	YREF	1076.5800
	25.000	ANL	1.860			YREF	1076.5800
	27.000					ZREF	375.0000
						SCALE	.0150

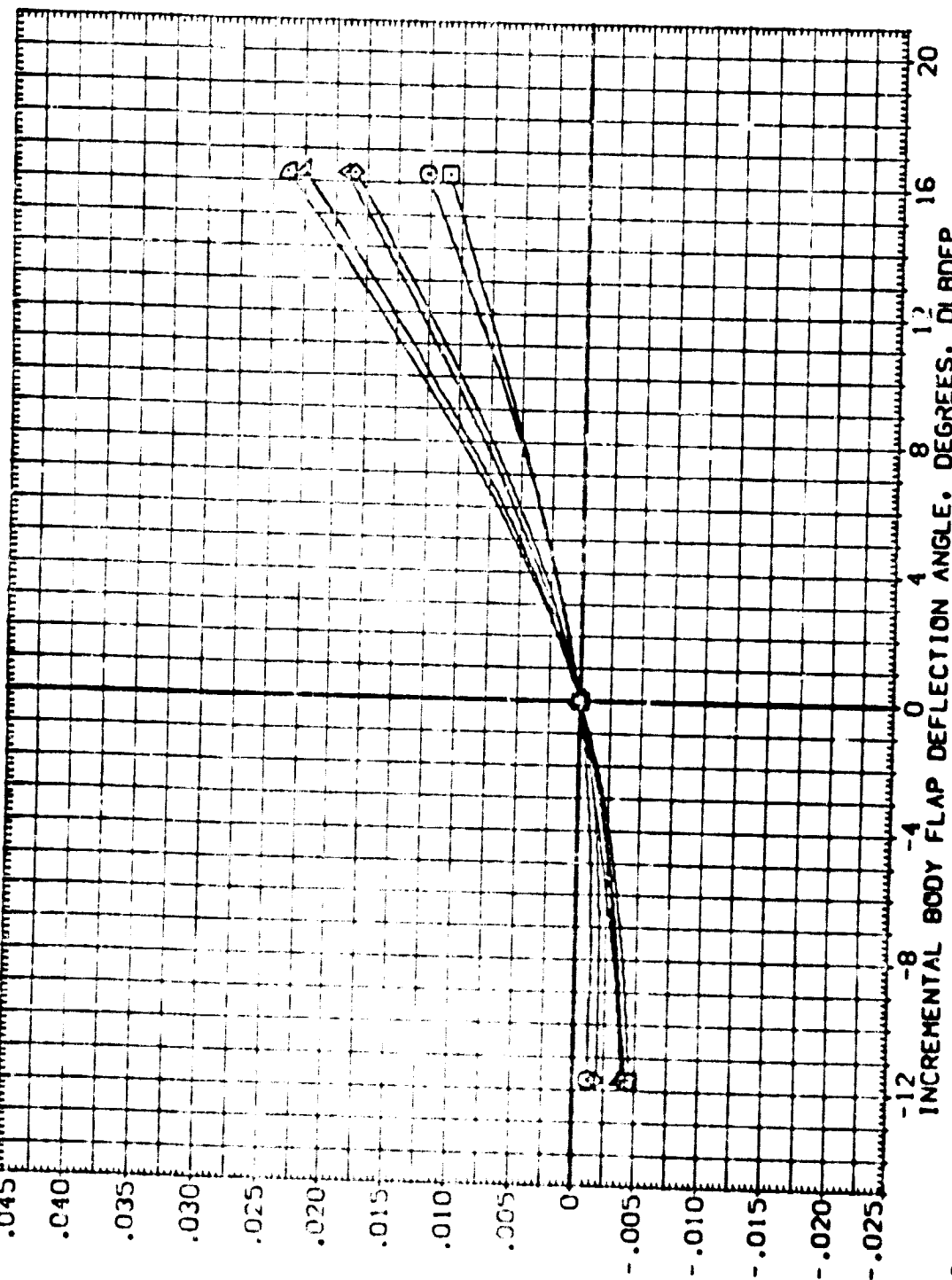


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	.000	DTW048	SREF	2630.0000
29.000	FLV-L0	.000	DTW048	LINEZ	474.8100
31.000	FLV-R1	.000	DTW049	SCALE	375.0000
33.000	FLV-R2	.000			
35.000	FLV-R3	.000			
37.000	FLV-R4	.000			
39.000	FLV-R5	.000			
	FLV-R6	.000			
	FLV-R7	.000			
	FLV-R8	.000			
	FLV-R9	.000			
	FLV-R10	.000			
	FLV-R11	.000			
	FLV-R12	.000			
	FLV-R13	.000			
	FLV-R14	.000			
	FLV-R15	.000			
	FLV-R16	.000			
	FLV-R17	.000			
	FLV-R18	.000			
	FLV-R19	.000			
	FLV-R20	.000			
	FLV-R21	.000			
	FLV-R22	.000			
	FLV-R23	.000			
	FLV-R24	.000			
	FLV-R25	.000			
	FLV-R26	.000			
	FLV-R27	.000			
	FLV-R28	.000			
	FLV-R29	.000			
	FLV-R30	.000			
	FLV-R31	.000			
	FLV-R32	.000			
	FLV-R33	.000			
	FLV-R34	.000			
	FLV-R35	.000			
	FLV-R36	.000			
	FLV-R37	.000			
	FLV-R38	.000			
	FLV-R39	.000			
	FLV-R40	.000			
	FLV-R41	.000			
	FLV-R42	.000			
	FLV-R43	.000			
	FLV-R44	.000			
	FLV-R45	.000			
	FLV-R46	.000			
	FLV-R47	.000			
	FLV-R48	.000			
	FLV-R49	.000			
	FLV-R50	.000			
	FLV-R51	.000			
	FLV-R52	.000			
	FLV-R53	.000			
	FLV-R54	.000			
	FLV-R55	.000			
	FLV-R56	.000			
	FLV-R57	.000			
	FLV-R58	.000			
	FLV-R59	.000			
	FLV-R60	.000			
	FLV-R61	.000			
	FLV-R62	.000			
	FLV-R63	.000			
	FLV-R64	.000			
	FLV-R65	.000			
	FLV-R66	.000			
	FLV-R67	.000			
	FLV-R68	.000			
	FLV-R69	.000			
	FLV-R70	.000			
	FLV-R71	.000			
	FLV-R72	.000			
	FLV-R73	.000			
	FLV-R74	.000			
	FLV-R75	.000			
	FLV-R76	.000			
	FLV-R77	.000			
	FLV-R78	.000			
	FLV-R79	.000			
	FLV-R80	.000			
	FLV-R81	.000			
	FLV-R82	.000			
	FLV-R83	.000			
	FLV-R84	.000			
	FLV-R85	.000			
	FLV-R86	.000			
	FLV-R87	.000			
	FLV-R88	.000			
	FLV-R89	.000			
	FLV-R90	.000			
	FLV-R91	.000			
	FLV-R92	.000			
	FLV-R93	.000			
	FLV-R94	.000			
	FLV-R95	.000			
	FLV-R96	.000			
	FLV-R97	.000			
	FLV-R98	.000			
	FLV-R99	.000			
	FLV-R100	.000			

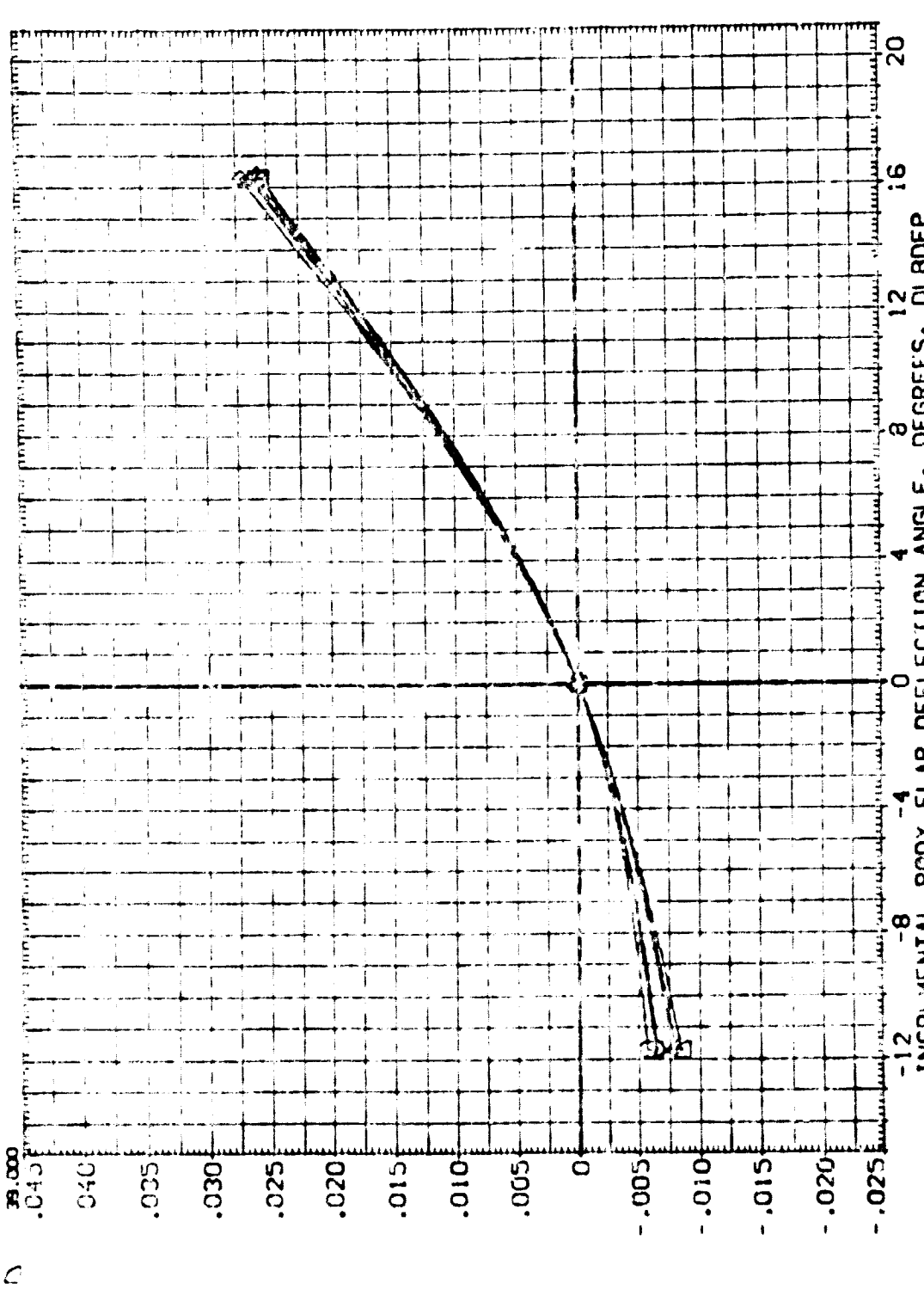


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLBDFP	DATA SET	DLBDFP	SREF	REFERENCE INFORMATION
○	41.000		8.000 BETA	.000	DTW045	-11.700	DTW040	.000	LREF	2690.0000 SQ.FT.
□	43.000	ELV-L0	.000 ELV-L1	.000	DTW045	15.300			BREF	474.8100 IN.
◇	45.000	ELV-R1	.000 ELV-R0	.000	DTW049				XTRP	938.6000 IN.X0
		SPOBRK	55.000 RUDDER	.000					YTRP	1076.6800 IN.Y0
		RV/L	1.850						ZTRP	375.0000 IN.Z0
									SCALE	.0150

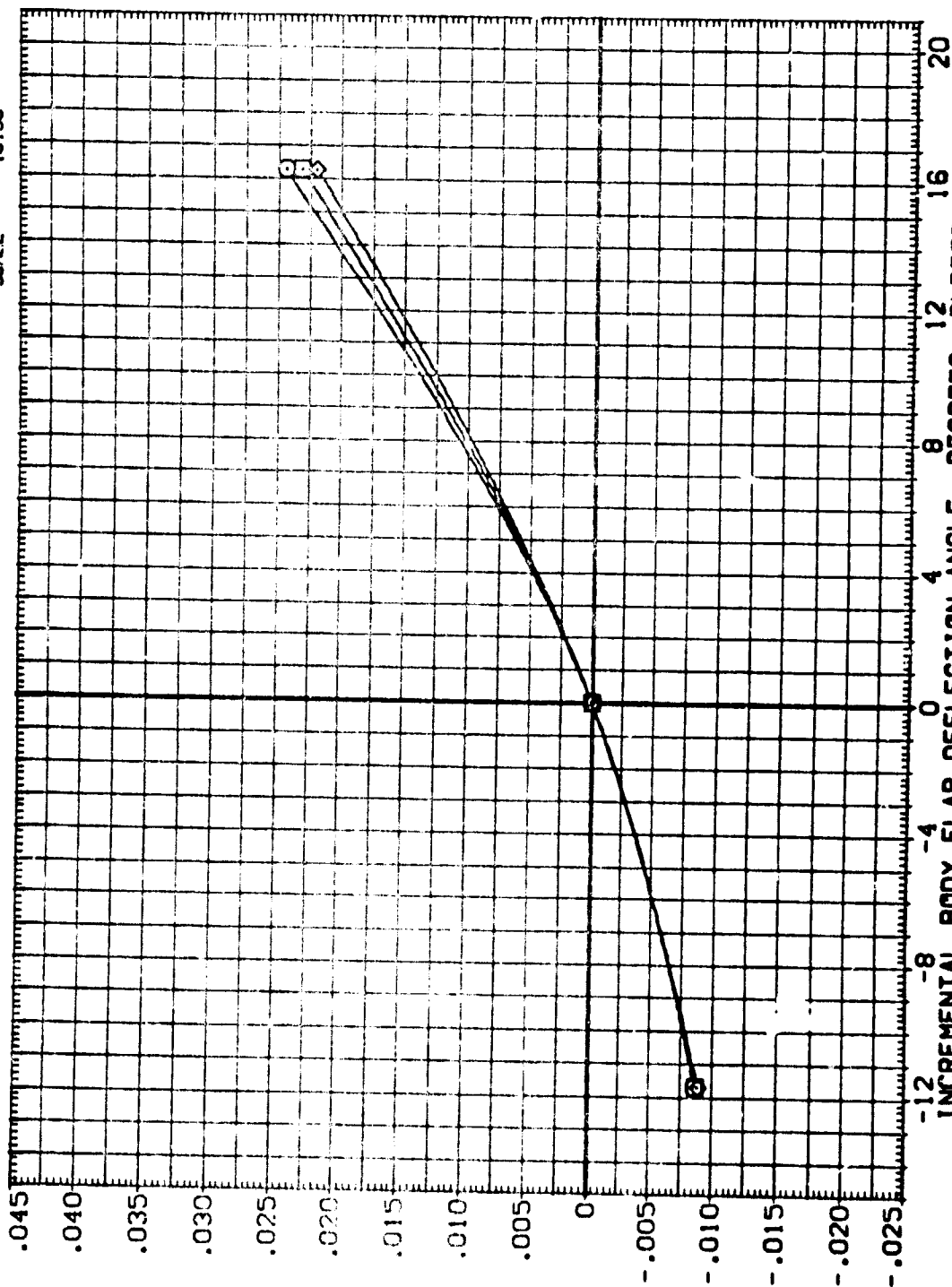


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLBOFF	SCALE	REFERENCE INFORMATION
○	17.000	ELV-L0	8.000	BETA	.000	DTW048	.000	SREF 2690.0000
□	19.000	ELV-L1	.000	ELV-L1	.000	DTW048	.000	LREF 474.8100
◇	21.000	ELV-R1	.000	ELV-R0	.000	DTW049	.000	BREF 936.6900
△	23.000	SFOURK	55.000	RUSER	.000	DTW049	.000	XREF 1076.6900
▽	25.000	RVL	1.860					YREF 375.0000
○	27.000							ZREF .0150

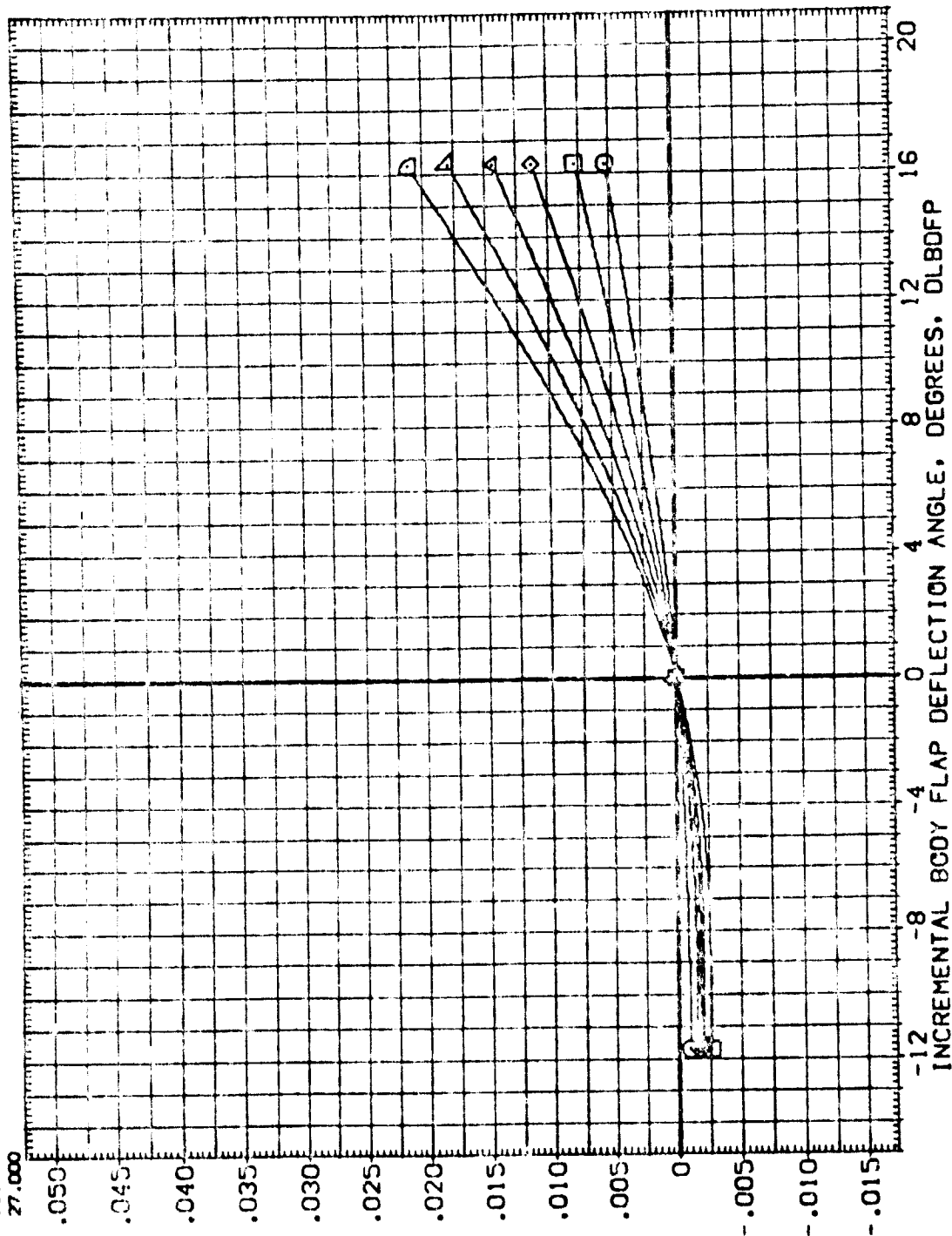


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLBDFP	REF	REFERENCE INFORMATION
□	29.000	ELV-L0	8.000	.000	DTW048	.000	SREF	2930.0000 SQ.FT.
◇	31.000	ELV-L1	.000	.000	DTW049	.000	LREF	474.8100 IN.
△	33.000	ELV-R1	.000	.000	DTW049	.000	BREF	936.6900 IN.
▽	35.000	SPOBRK	55.000	.000	DTW049	.000	XREF	1076.6300 IN.
◇	37.000	RVL	1.860	.000	DTW049	.000	YREF	375.0000 IN.
◇							ZREF	375.0000 IN.
							SCALE	.0150

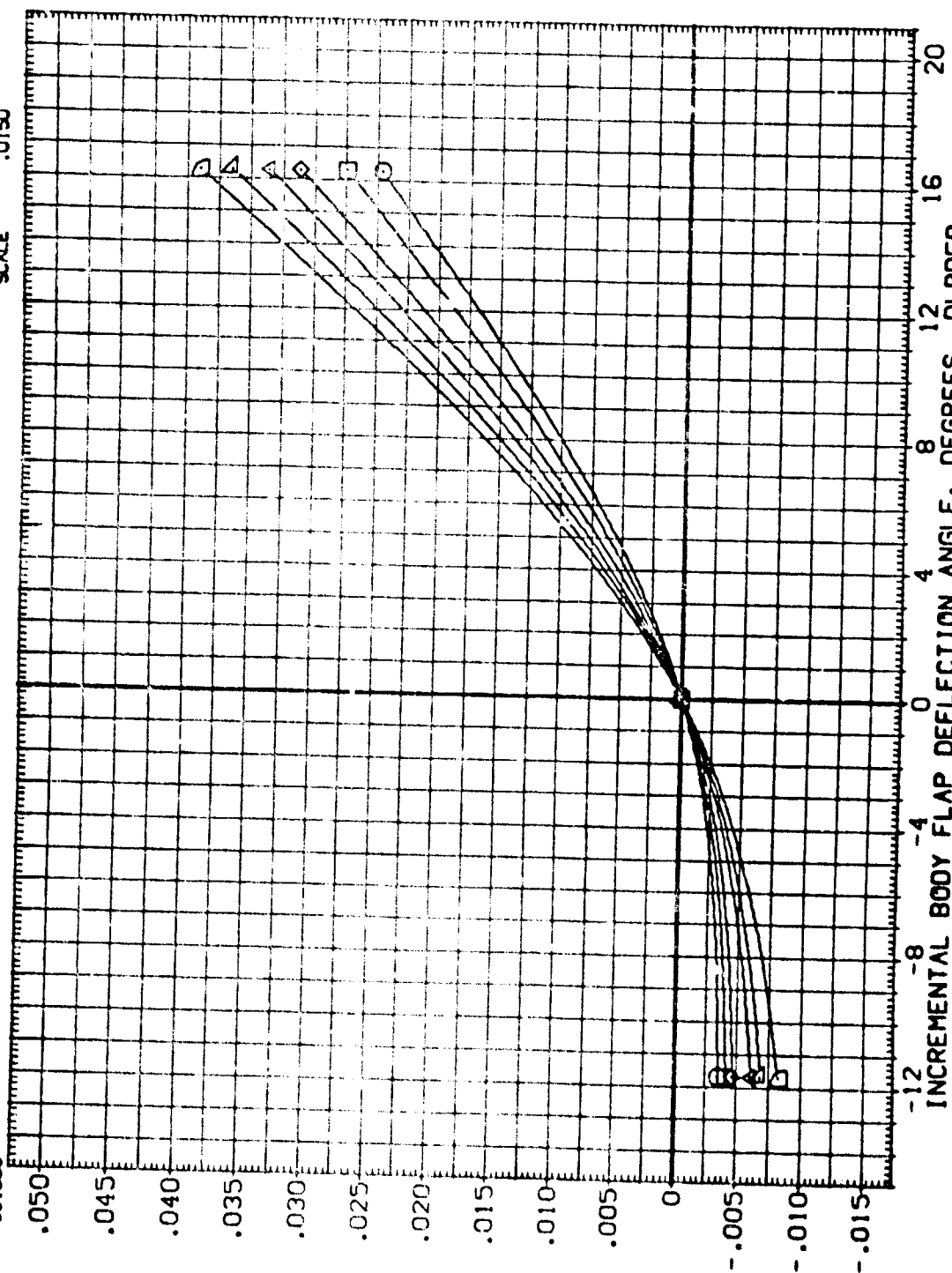


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW048)

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	41.000	MACH	.000 DATASET	SREF 2690.0000
□	43.000	ELV-L0	.000 DTW048	LREF 474.8100
□	45.000	ELV-R1	.000 DTW048	BREF 936.5800
◇		ELV-R3	.000 DTW048	YREF 1076.6300
		SCORER	.000	YREF 0.00
		RAVL	.000	ZREF 375.0000
				SCALE .0150

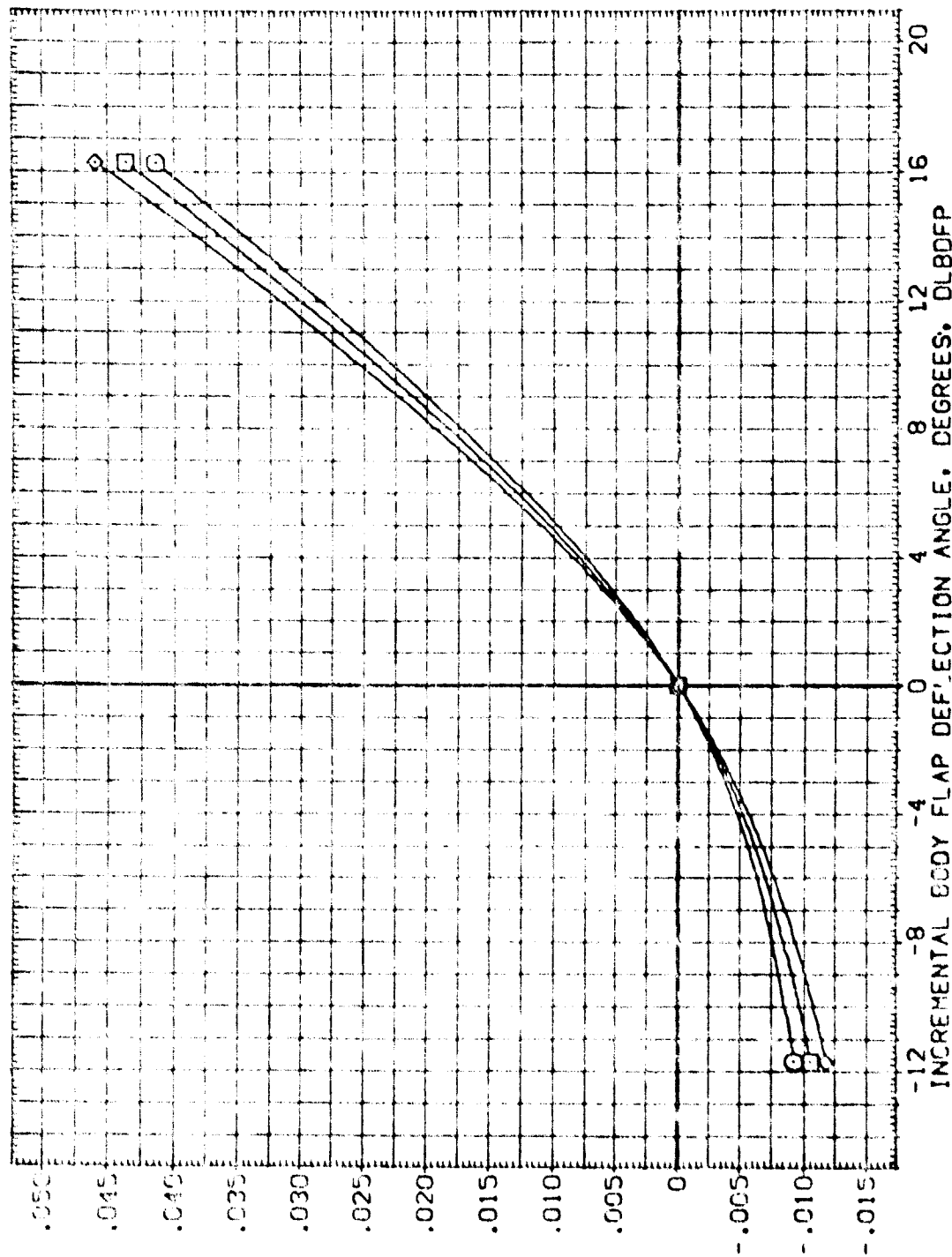


FIG. 18 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 1.86)



DATA SET SYMBOL	CONF IGURATION DESCRIPTION	BOFLAP	RM/L	REFERENCE INFORMATION
(CTV059)	Q479 B26 C9 E43 F8 M16 N28 R5 V8 V116	-11.700	.500	SREF 2691.0000 SQ.FT.
(CTV057)	Q479 B26 C9 E43 F8 M16 N28 R5 V8 V116	.000	.500	LREF 474.8100 IN.
(CTV058)	Q479 B26 C9 E43 F8 M16 N28 R5 V8 V116	16.700	.500	BREF 936.8700 IN.
				XREF 1076.6900 IN.X0
				YREF .0000 IN.Y0
				ZREF 375.0000 IN.Z0
				SCALE .0150

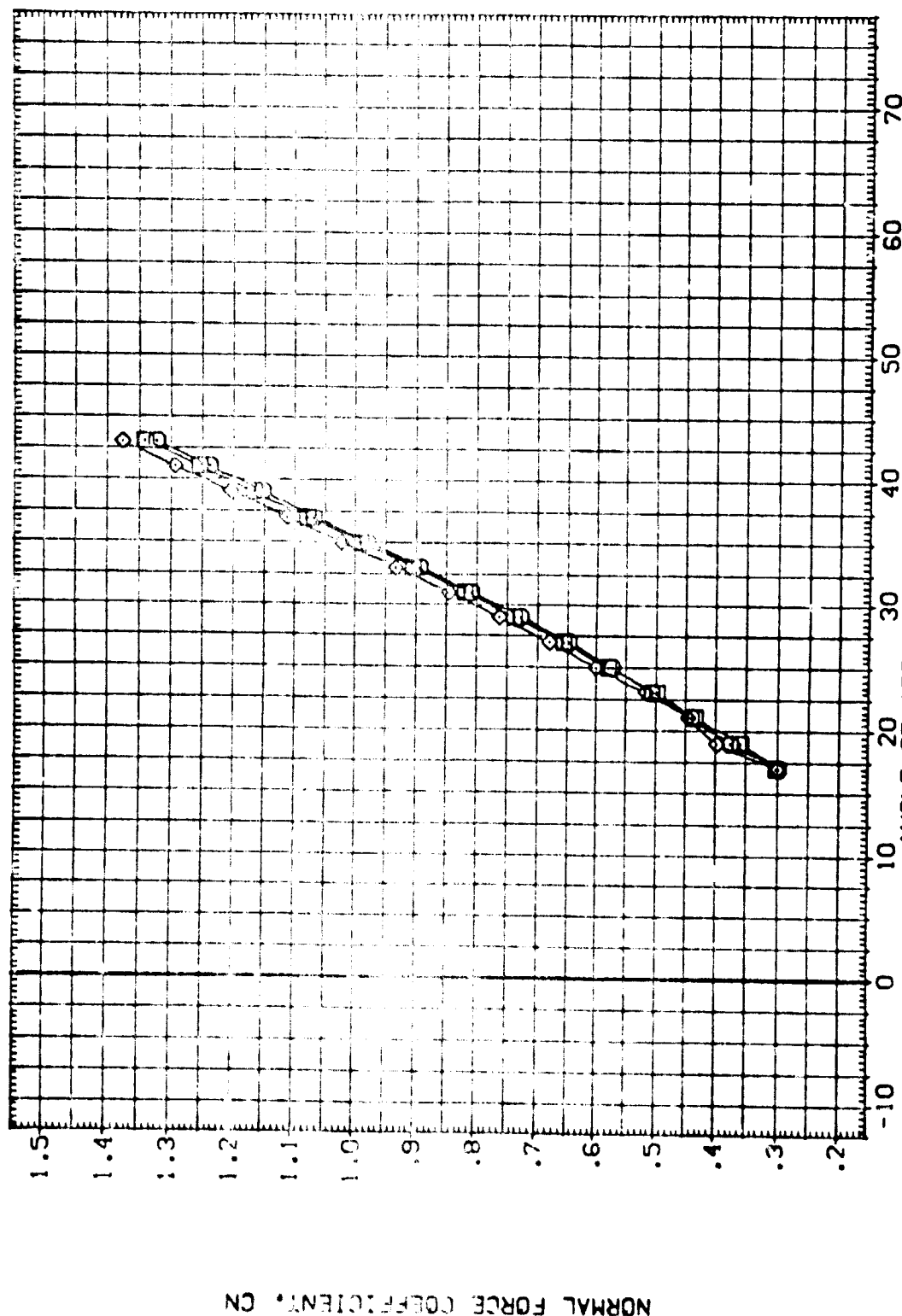


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(CT1059)	QA79 B26 C9 E43 F8 M16 N28 R5 V8 V116
(CT1057)	QA79 B26 C9 E43 F8 M16 N28 R5 V8 V116
(CT1059)	QA79 B26 C9 E43 F8 M16 N28 R5 V8 V116

90° FLAP    RVAL

-11.700	.500
.000	.500
16.300	.500

REFERENCE INFORMATION

SREF	2690.0000	50. FT.
LREF	474.8100	IN.
BREF	536.8000	IN.
XREF	1076.0000	IN.
YREF	0.0000	IN.
ZREF	375.0000	IN.
SCALE	.0150	

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C. G.) CLMFWO

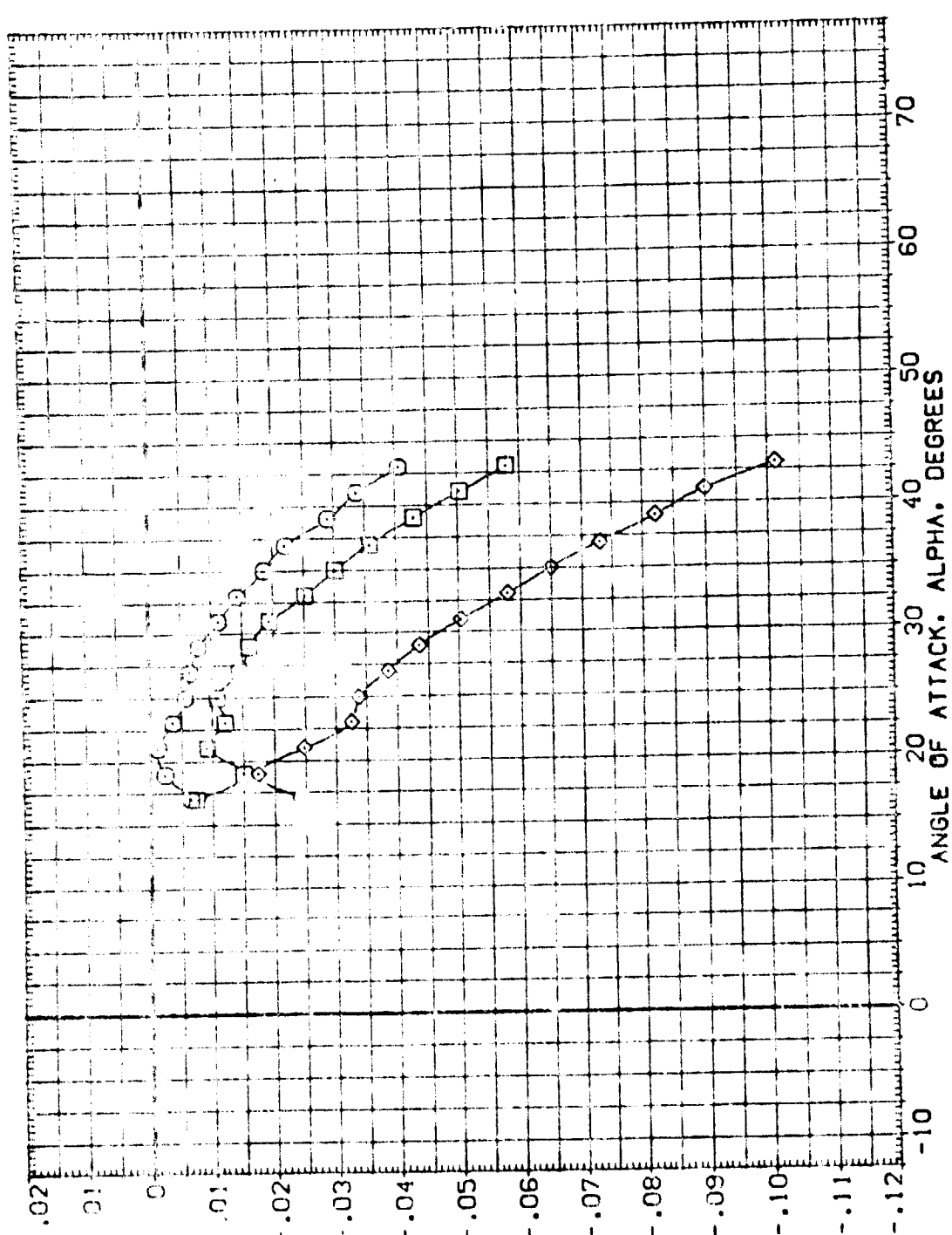


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A) MACH = 7.90

DATA SET SYMBOL  
(CTW059)  
(CTW057)  
(CTW058)

CONFIGURATION DESCRIPTION  
0A79 B26 C9 E43 F8 H16 N28 R5 V8 VII6  
0A79 B26 C9 E43 F8 H16 N28 R5 V8 VII6  
0A79 B26 C9 E43 F8 H16 N28 R5 V8 VII6

BOFLAP GUL  
-11.700 .500  
.000 .500  
16.300 .500

REFERENCE INFORMATION  
SREF 2690.0000 SQ.FT.  
LREF 474.8100 IN.  
BREF 936.6900 IN.  
XPRP 1076.6300 IN.X0  
YPRP .0000 IN.Y0  
ZPRP 375.0000 IN.Z0  
SCALE .0150

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH (C. G.) CLMPT

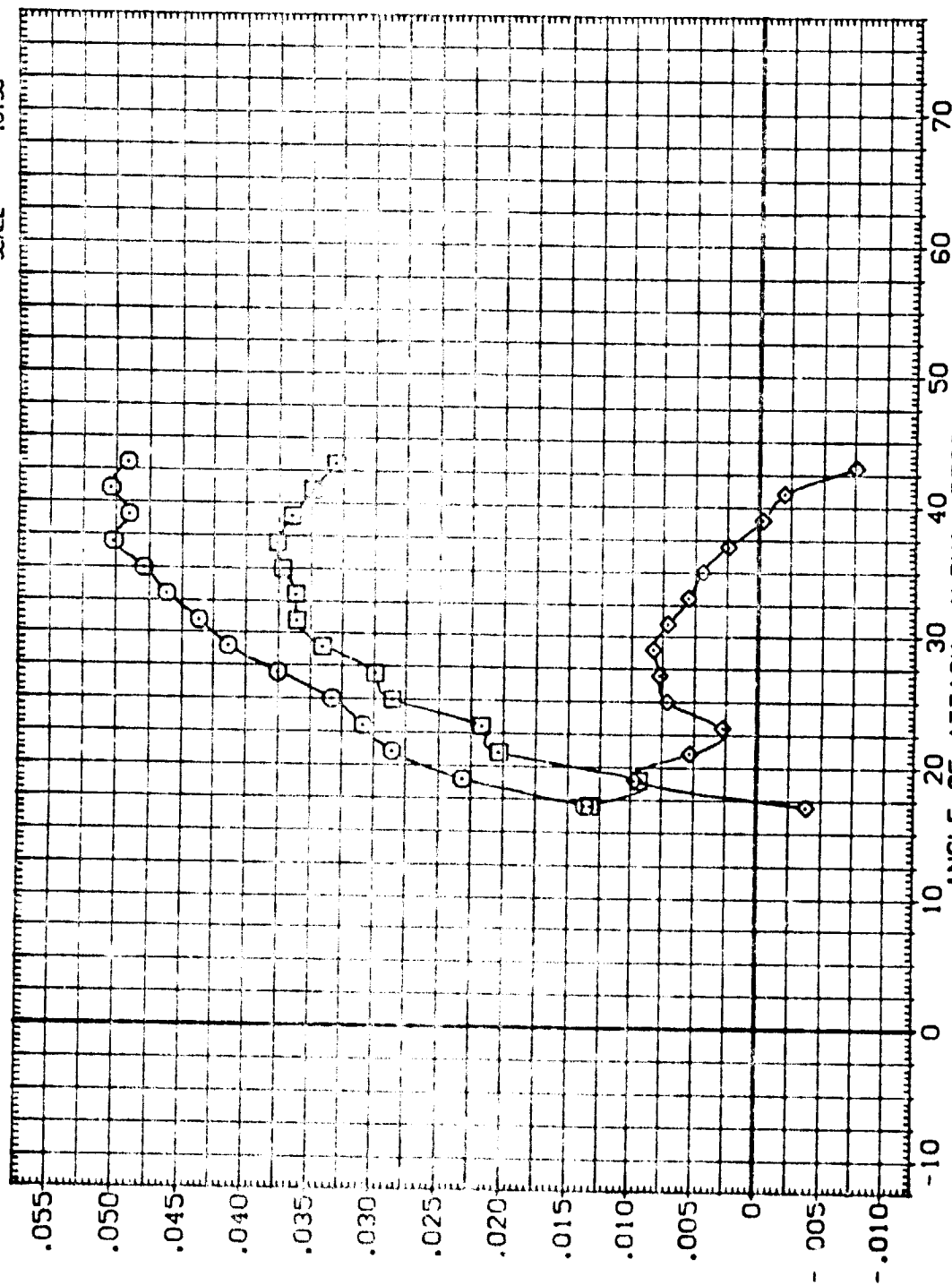


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CTV059)	0A79 B26 C9 F43 F8 H16 N28 R5 V8 V116
(CTV057)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116
(CTV053)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116

BOFLAP RVL

-11.700	.500
.000	.500
16.300	.500

REFERENCE INFORMATION

SREF	2690.0000	50.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XREF	1076.6800	IN.
YREF	.0000	IN.
ZREF	375.0000	IN.
SCALE	.0150	

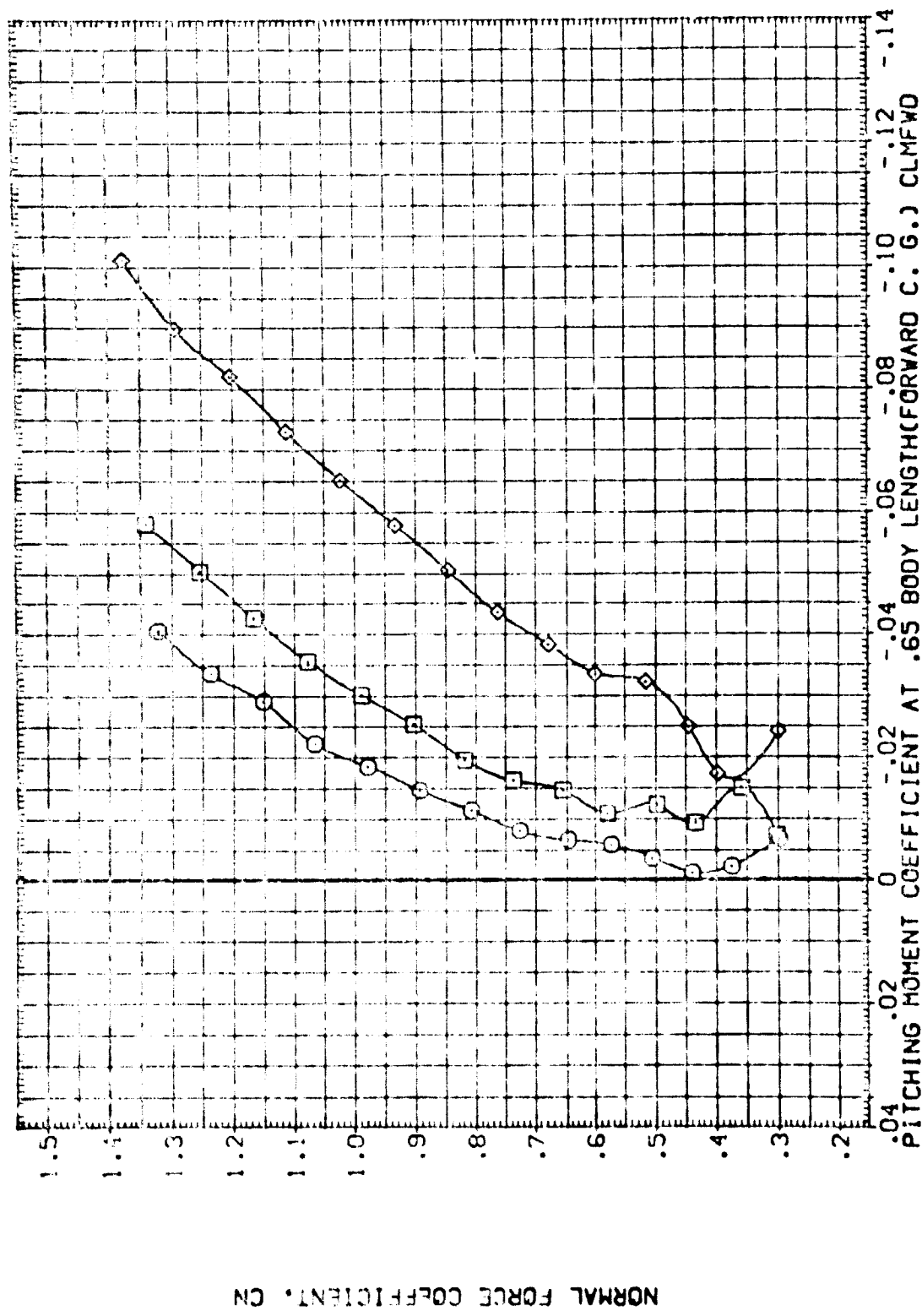


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BUFLAP	INVL	REFERENCE INFORMATION
(CTV059)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	-11.700	.500	SREF 2690.0000 50.0 FT.
(CTV057)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.000	.500	LREF 474.8100 IN.
(CTV058)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	15.300	.500	PREF 936.0000 IN.
				XREF 1075.0000 IN.
				YREF 1.0 IN.
				ZREF 375.0000 IN.
				SCALE .0150

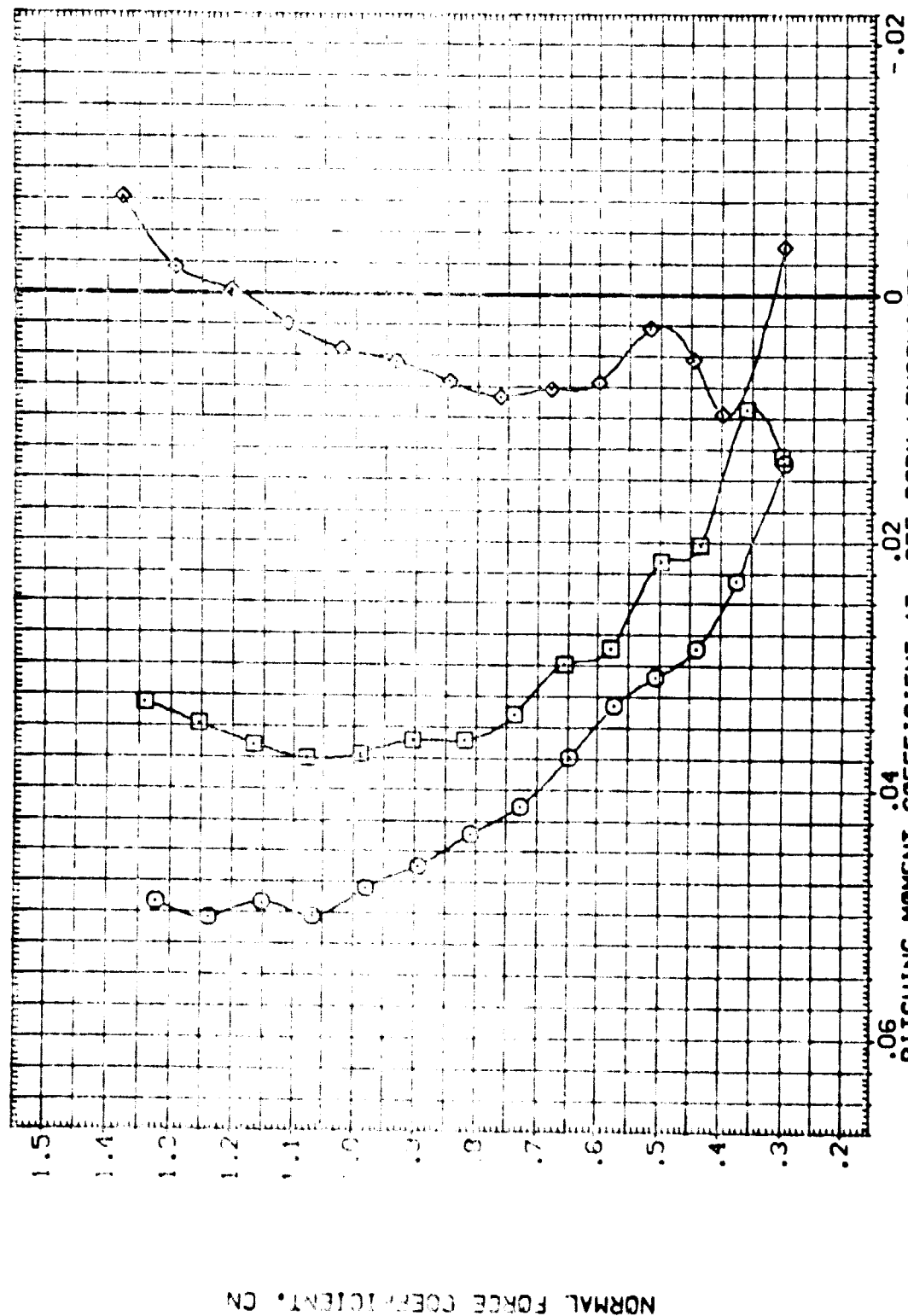


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

REFERENCE INFORMATION  
 SREF 3690.0000 50.FT.  
 LREF 474.8100 IN.  
 CREF 935.6300 IN.X0  
 AREF 1076.0000 IN.Y0  
 ZREF 375.0000 IN.Z0  
 SCALE .0150

BOFLAP RVL  
 -11.700  
 .000  
 16.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (C1V059) 8 0A79 826 C9 E43 F8 M16 N28 R5 V8 V116  
 (C1V057) 8 0A79 826 C9 E43 F8 M16 N28 R5 V8 V116  
 (C1V056) 8 0A79 826 C9 E43 F8 M16 N28 R5 V8 V116

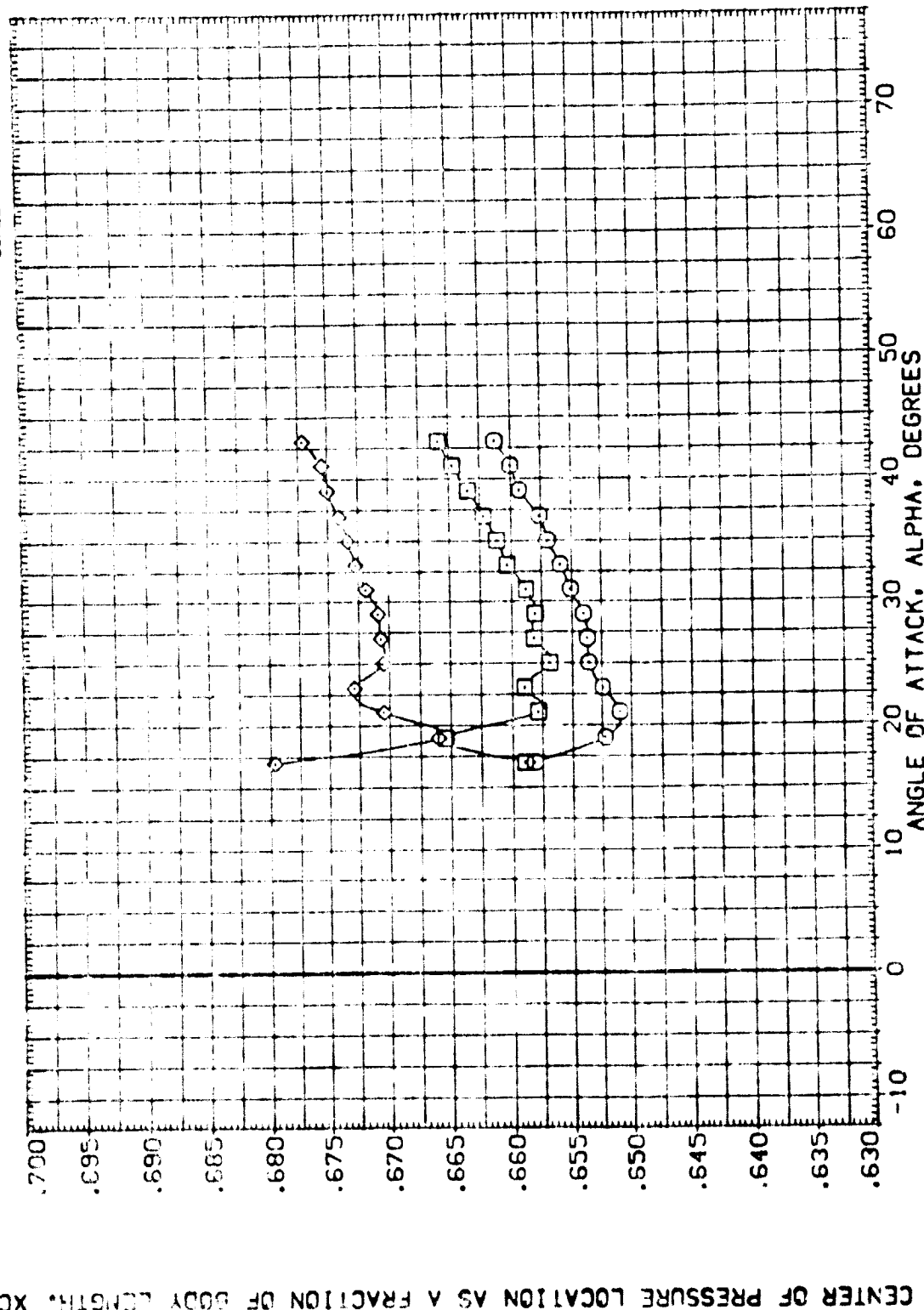


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90



DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(C1059)	0479 826 C9 E43 F8 M16 N28 R5	V8 V116
(C1057)	0479 826 C9 E43 F8 M16 N28 R5	V8 V116
(C1058)	0479 826 C9 E43 F8 M16 N28 R5	V8 V116

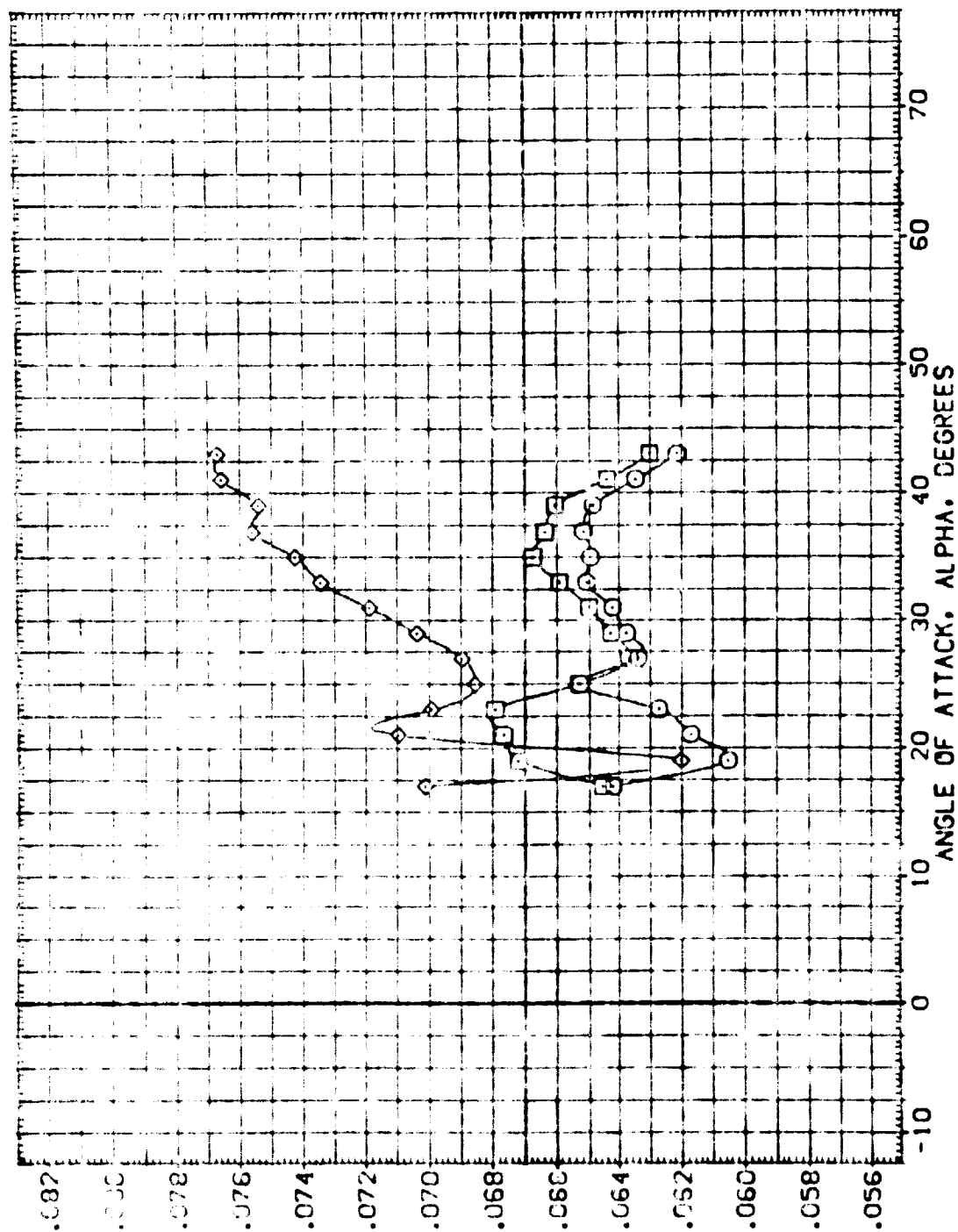


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (C14059) 0 0479 926 C9 E43 F8 H16 M28 R5 V8 VII6  
 (C14057) 0 0479 926 C9 E43 F8 H16 M28 R5 V8 VII6  
 (C14053) 0 0479 926 C9 E43 F8 H16 M28 R5 V8 VII6

50 FLAP INVL  
 -11.700 1500  
 10.000 1500  
 10.000 1500

REFERENCE INFORMATION  
 SREF 2590.0000 50.00  
 UREF 474.6100 10.00  
 ZREF 10.0000 10.00  
 VREF 375.0000 10.00  
 SCALE 0.050

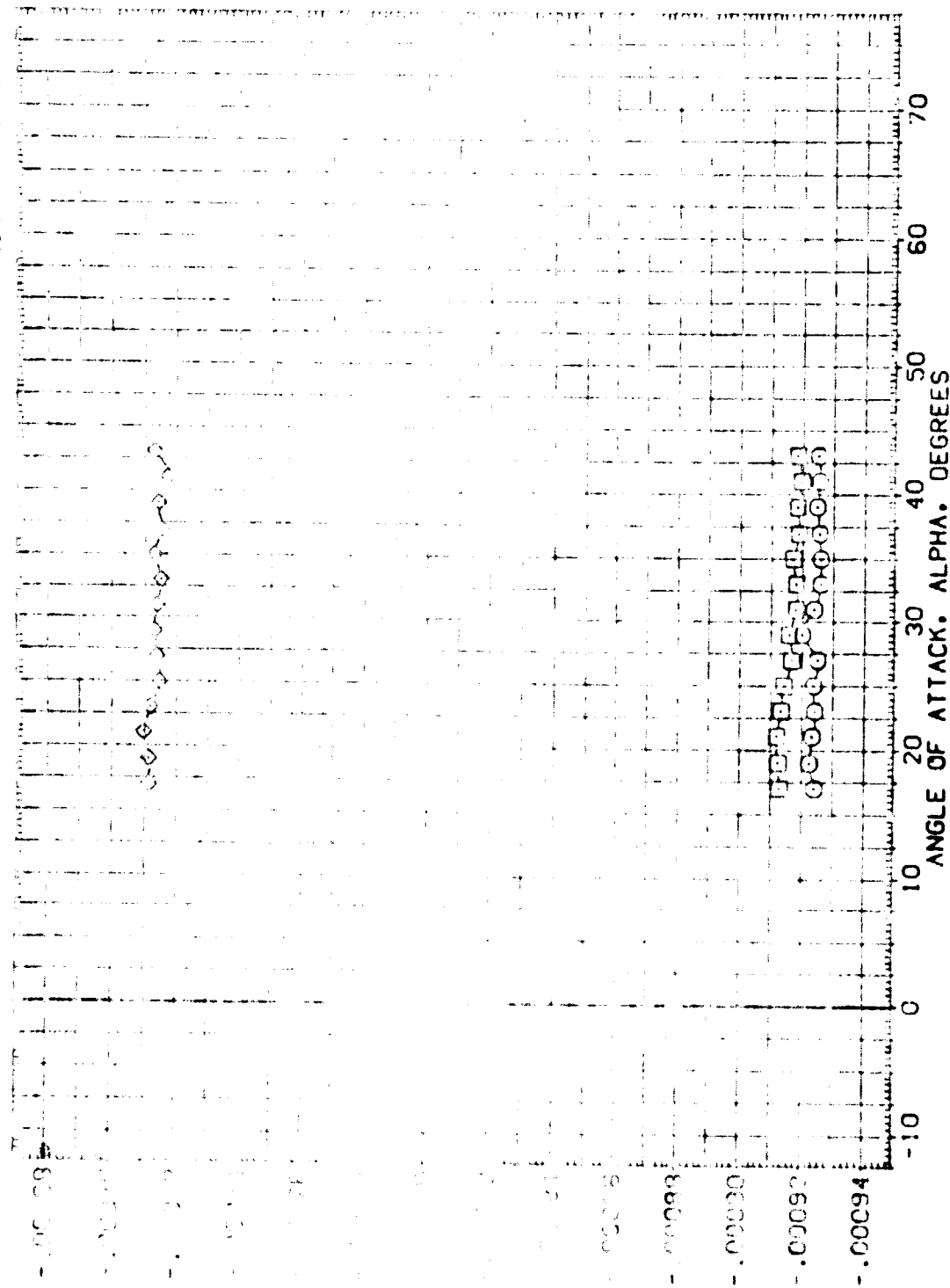


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

REFERENCE INFORMATION

SREF	2630.0000	50.00
LREF	474.8100	IN.
UREF	9.56.0000	IN.
XREF	1076.0000	IN.
YREF	0.0000	IN.
ZREF	375.0000	IN.
SCALE	0.0150	

BDFLAP RNL

-11.700	500
-11.700	500
14.300	500

DATA SET SYMBOL CONFIGURATION DESCRIPTION

0179 826 C9 E43 F8 M16 N08 R3 V8 V116
0179 823 C9 E43 F8 M16 N08 R5 V8 V116
0179 826 C9 E43 F8 M16 N08 R5 V8 V116

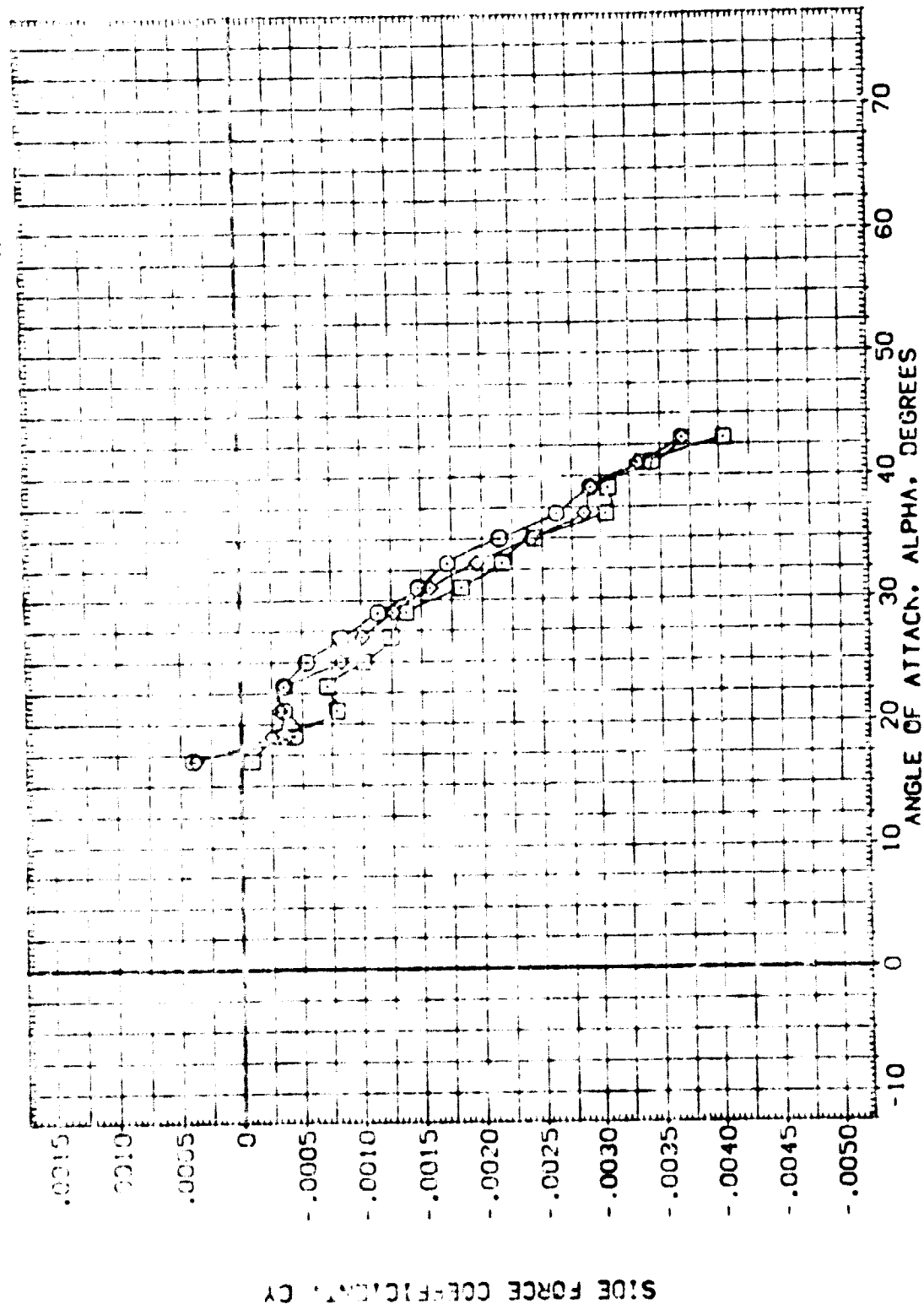


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ATW059) OA79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (ATW057) OA79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (ATW058) OA79 B26 C9 E43 F8 H16 N28 R5 V8 V116

BOFLAP RV/L  
 -11.700  
 16.300

REFERENCE INFORMATION  
 SREF 2030.0000 52.47  
 LREF 474.8100 IN.  
 RREF 935.6900 IN.  
 XREF 1075.6900 IN.  
 YREF 375.0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

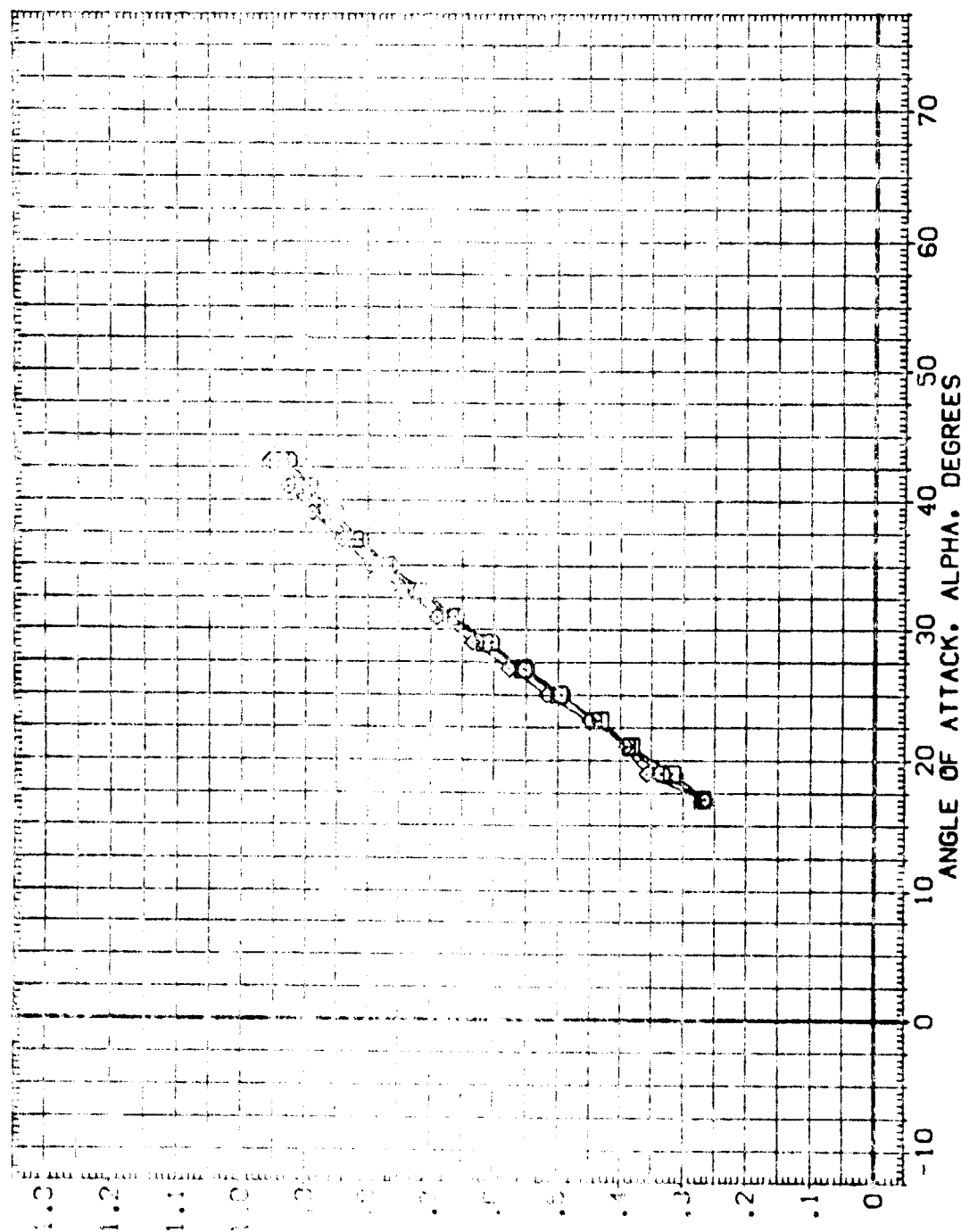


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(ATV059)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116
(ATV057)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116
(ATV058)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116

BOFL:P    RVAL

-11.700	.500
.000	.500
16.300	.500

REFERENCE INFORMATION

SREF	2690.0000	59. FT.
LREF	474.8100	IN.
RREF	936.6800	IN.
XTRP	1076.6300	IN.
YTRP	.0000	IN.
ZTRP	375.0000	IN.
SCALE	.0150	

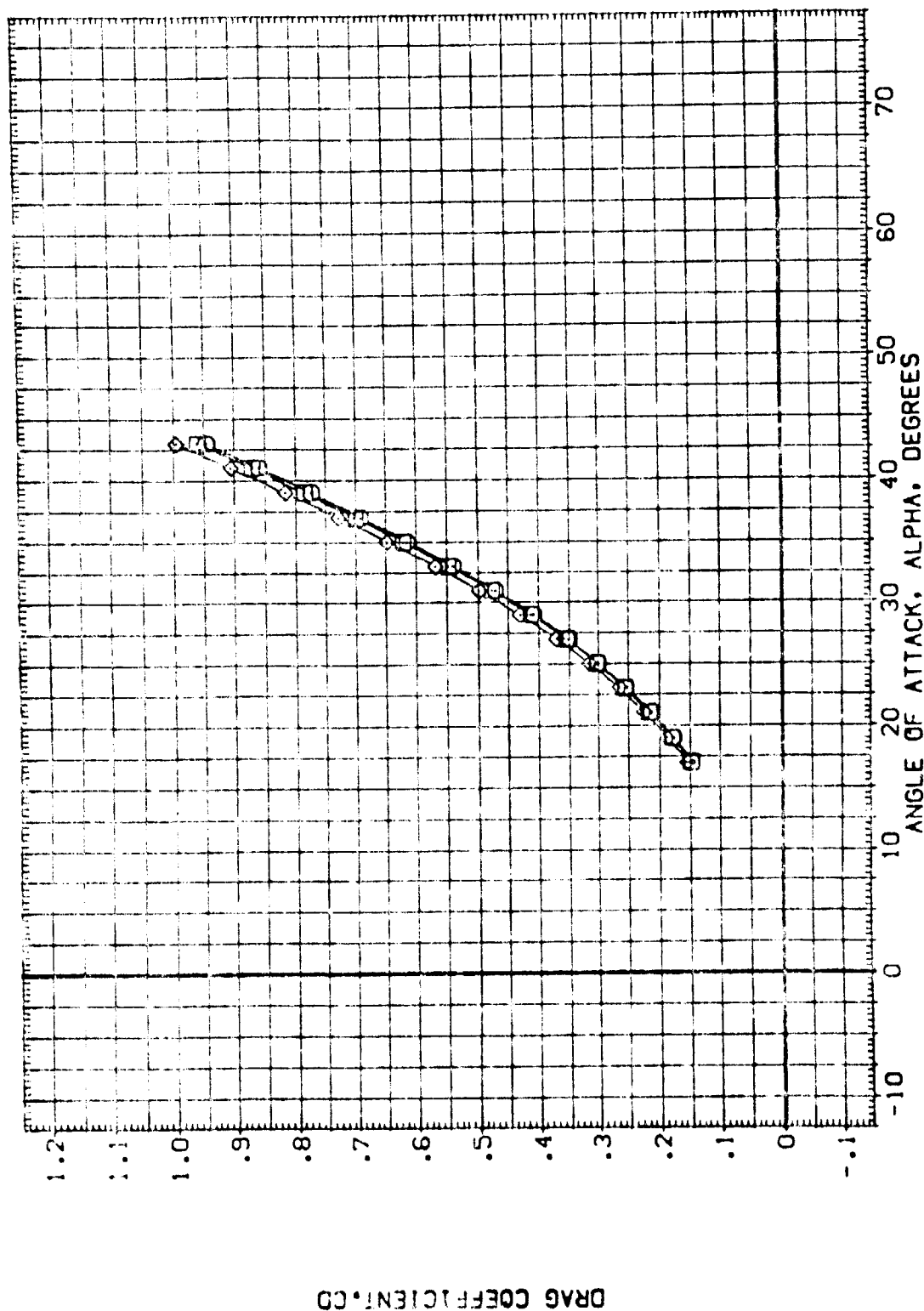


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(ATV059)    8    CA79 B26 CS E43 F8 M16 N28 RS V8 V116

(ATV057)    8    CA79 B26 CS E43 F8 M16 N28 RS V8 V116

(ATV058)    8    CA79 B26 CS E43 F8 M16 N28 RS V8 V116

EOFLAP    RV/L

-11.700    .500

10.000    .500

10.300    .500

REFERENCE INFORMATION

SREF    2650.0000    50.FT.

LREF    174.8100    IN.

CREF    903.0000    IN.

AZAP    1076.0000    IN/20

VREF    .0000    IN/10

ZREF    375.0000    IN/20

SCALE    .0150

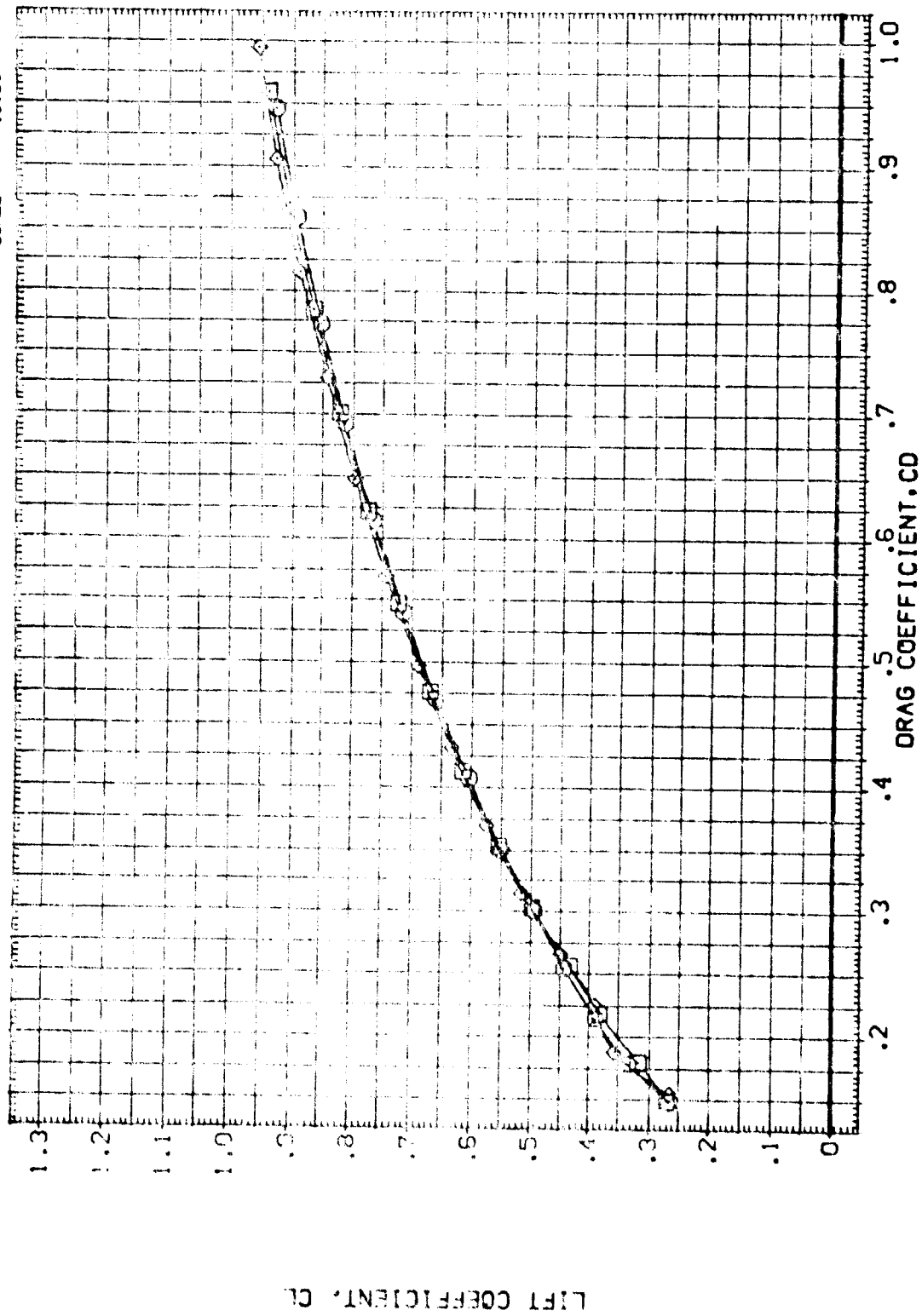


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

REFERENCE INFORMATION  
 SREF 2690.0000 50.FT.  
 LREF 474.8100 IN.  
 XREF 936.6300 IN. X0  
 YREF 1078.6000 IN. Y0  
 ZREF .0000 IN. Z0  
 SCALE .0150

BOFLAP RV/L  
 -11.700 .500  
 .000 .500  
 16.300 .500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 0A79 B26 C9 E43 F8 H16 N28 RE V8 V116  
 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116  
 0A79 B26 C9 E43 F8 H16 N28 TS V8 V116

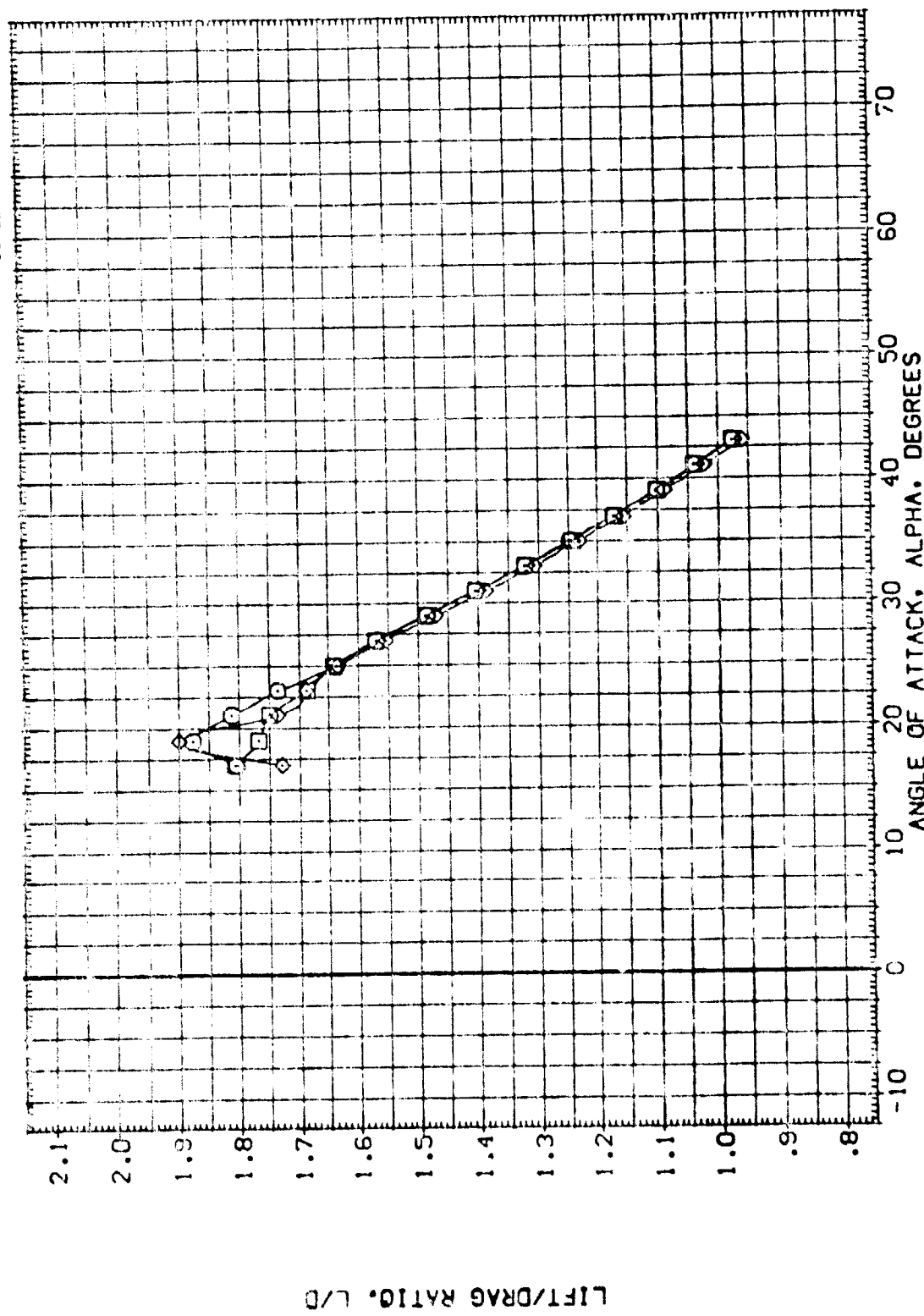


FIG. 19 BODY FLAP EFFECTIVENESS (REYNOLDS NUMBER = 0.50)

(A)MACH = 7.90

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	.000	DLBDFP	SREF	50. FT.
17.000	ELV-L0	.000	DTW059	LREF	IN.
19.000	ELV-R1	.000	DTW058	SREF	IN.
21.000	ELV-R0	.000		NREF	IN.
23.000	SFOBRK	.000		TRFP	IN.
25.000	RVAL	.500		ZTRP	IN.
27.000				SCALE	.0150

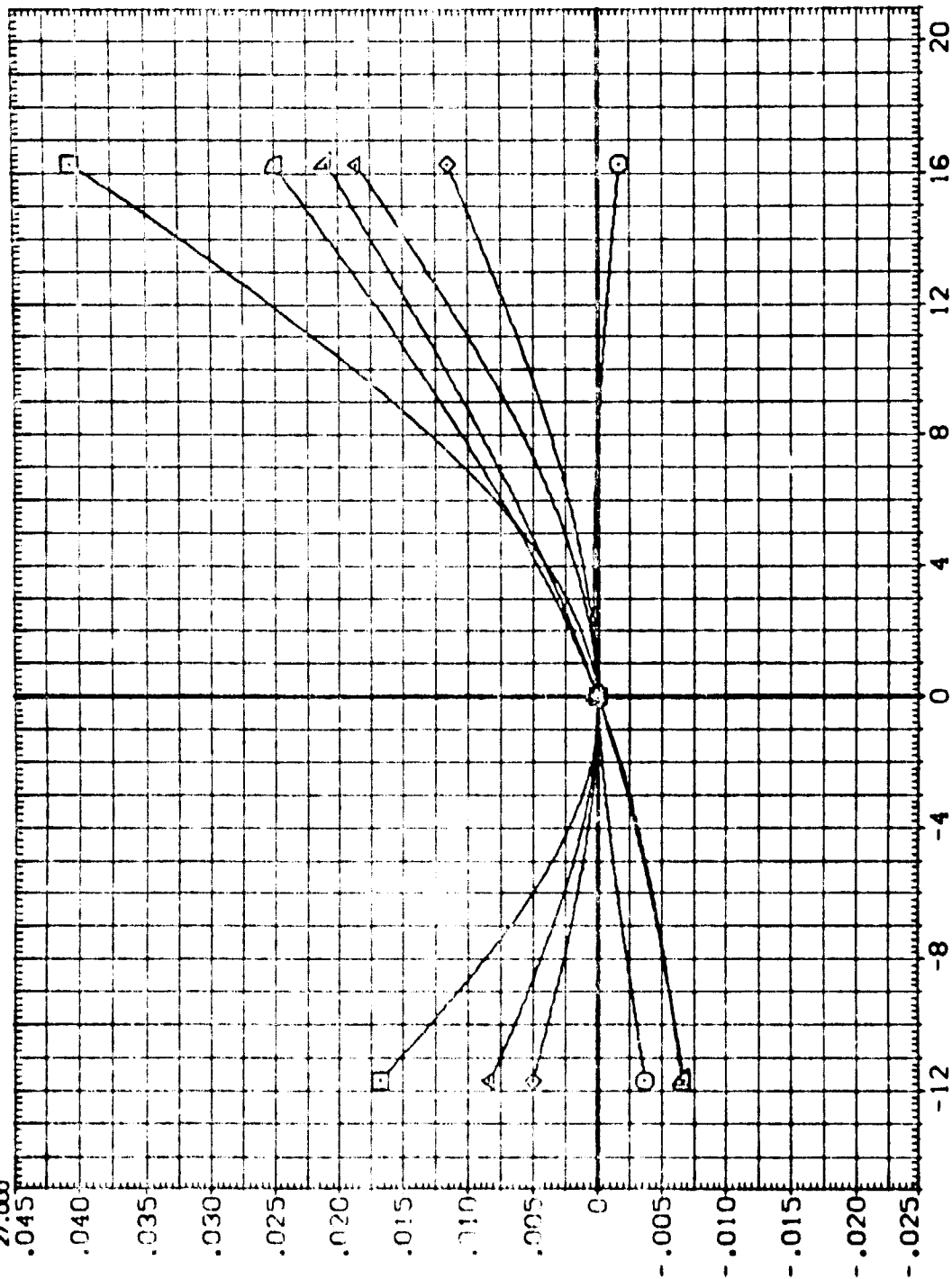


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 0.50)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	DLBOFP	REFERENCE INFORMATION
○	29.000	ELV-LB	8.000	.000	DTW059	.000	2690.0000 SO.FT.
○	31.000	ELV-LI	.000	.000	DTW059	.000	474.8100 IN.
○	33.000	ELV-RI	.000	.000	DTW058	.000	936.8800 IN.
○	35.000	SPORK	55.000	.000	DTW058	.000	1076.6200 IN. X0
○	37.000	WAL	.500	.000	DTW058	.000	375.0000 IN. Y0
							SCALE .0150

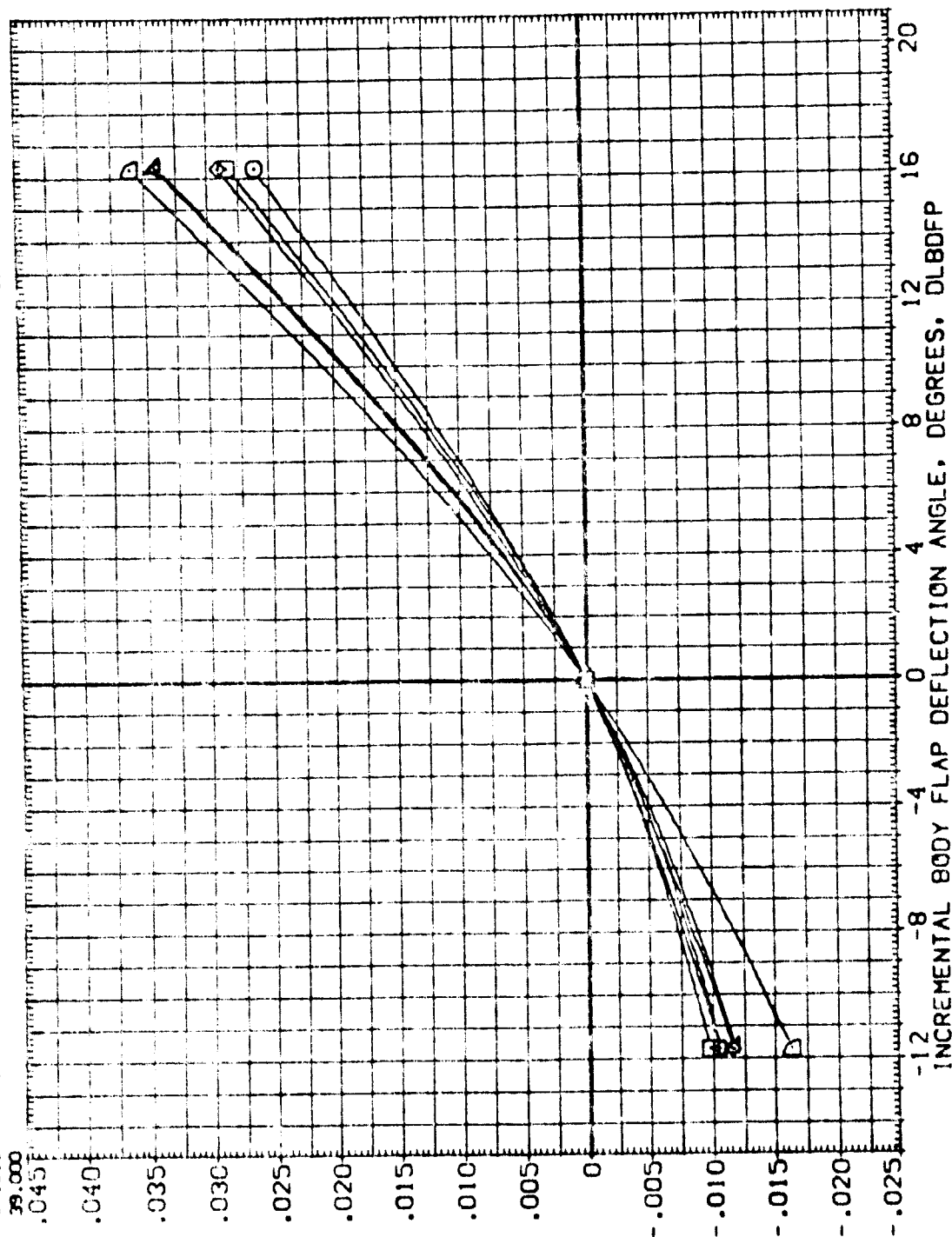


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

SYMBOL  
○ □ ◇

ALPHA  
41.000  
43.000  
45.000

MACH  
ELV-LO  
ELV-RI  
SPOB\*  
RWL

PARAMETRIC VALUES

BETA  
ELV-LI  
ELV-RO  
RUDDER  
RVL

DATA SOURCE

.000 DATASET  
.000 DTW059  
.000 DTW058  
.000 DTW057

DLBDFP

.000  
DTW057

REFERENCE INFORMATION

SHEF 2690.0000 SQ.FT.  
LREF 474.8100 IN.  
BREF 936.6800 IN.  
VREF 1076.6800 IN.  
YREF 375.0000 IN.  
ZREF 0.0150 IN.  
SCALE

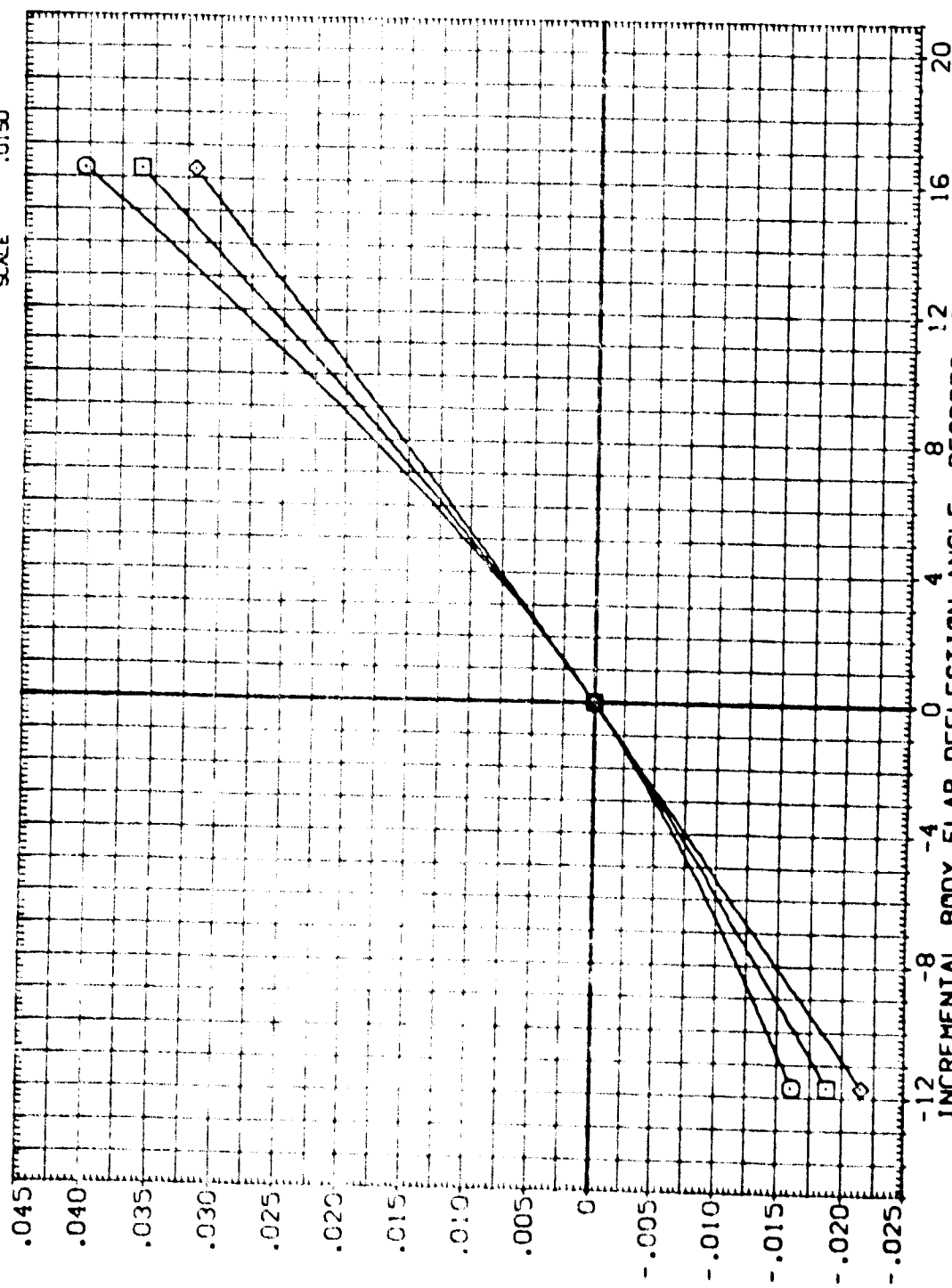


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
ALPHA	MACH	BETA	.000	DATASET	DLBOFP	SREF	2690.0000	50. FT.
29.000	ELV-L0	ELV-L1	.000	DTW059	.000	LREF	474.8100	IN.
31.000	ELV-R1	ELV-R0	.000	DTW058	.000	BREF	508.6800	IN.
33.000	SP08BK	WUDDER	.000			WREF	1076.0000	IN.
35.000	RVAL		.000			WREF	375.0000	IN.
37.000						ZREF	375.0000	IN.
39.000						SCALE	.0150	IN.

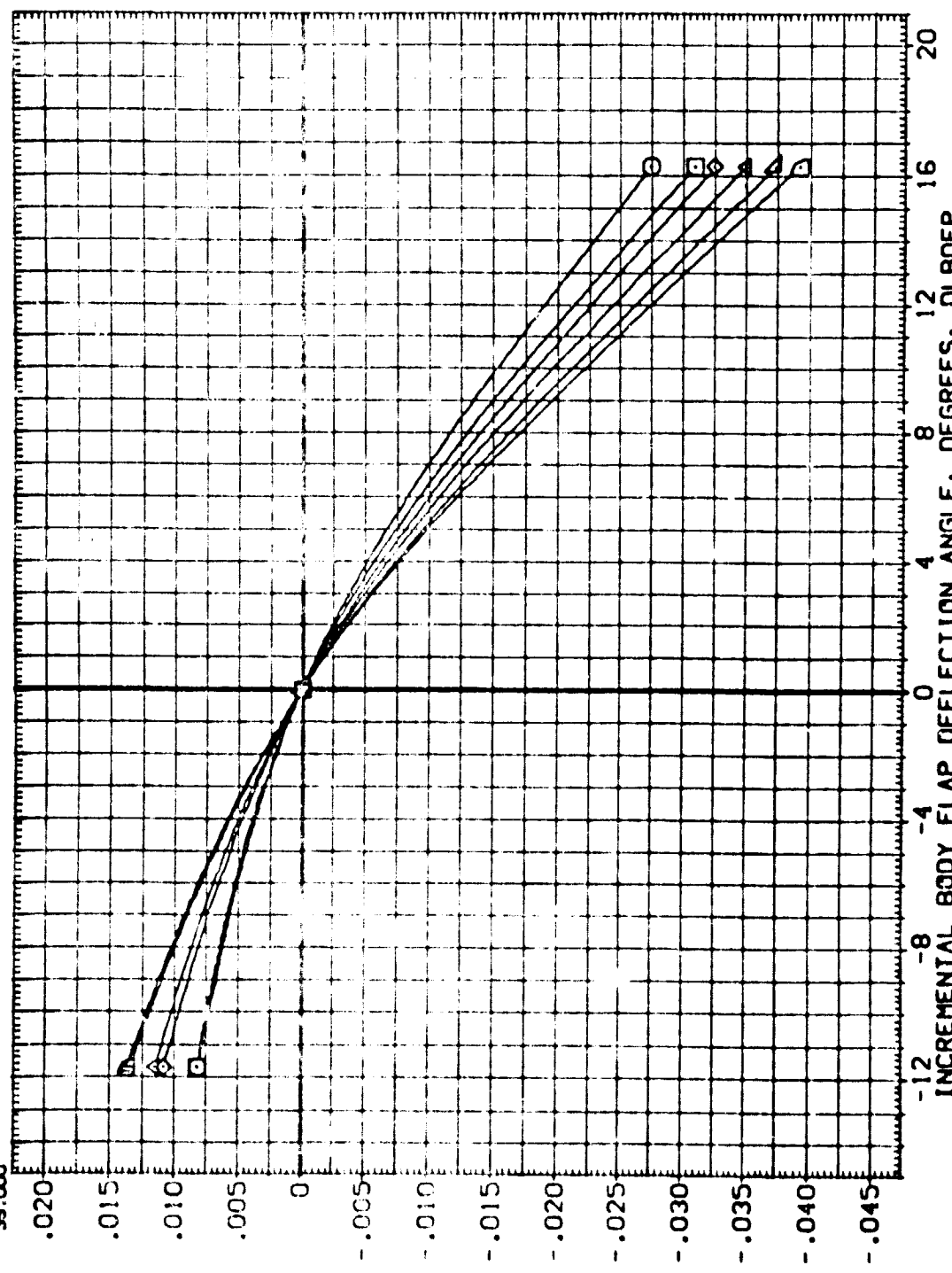


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0A79 826 C9 E43 F8 H16 N28 R5 V8 W116 (DTW059)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	.000	DL80FP	SREF	2650.0000
41.000	8.000	.000	DL80FP	LREF	474.8100
43.000	8.000	.000	DL80FP	BREF	936.6900
45.000	8.000	.000	DL80FP	YREF	1075.0500
47.000	8.000	.000	DL80FP	ZREF	1000.0000
49.000	8.000	.000	DL80FP	SCALE	.0150

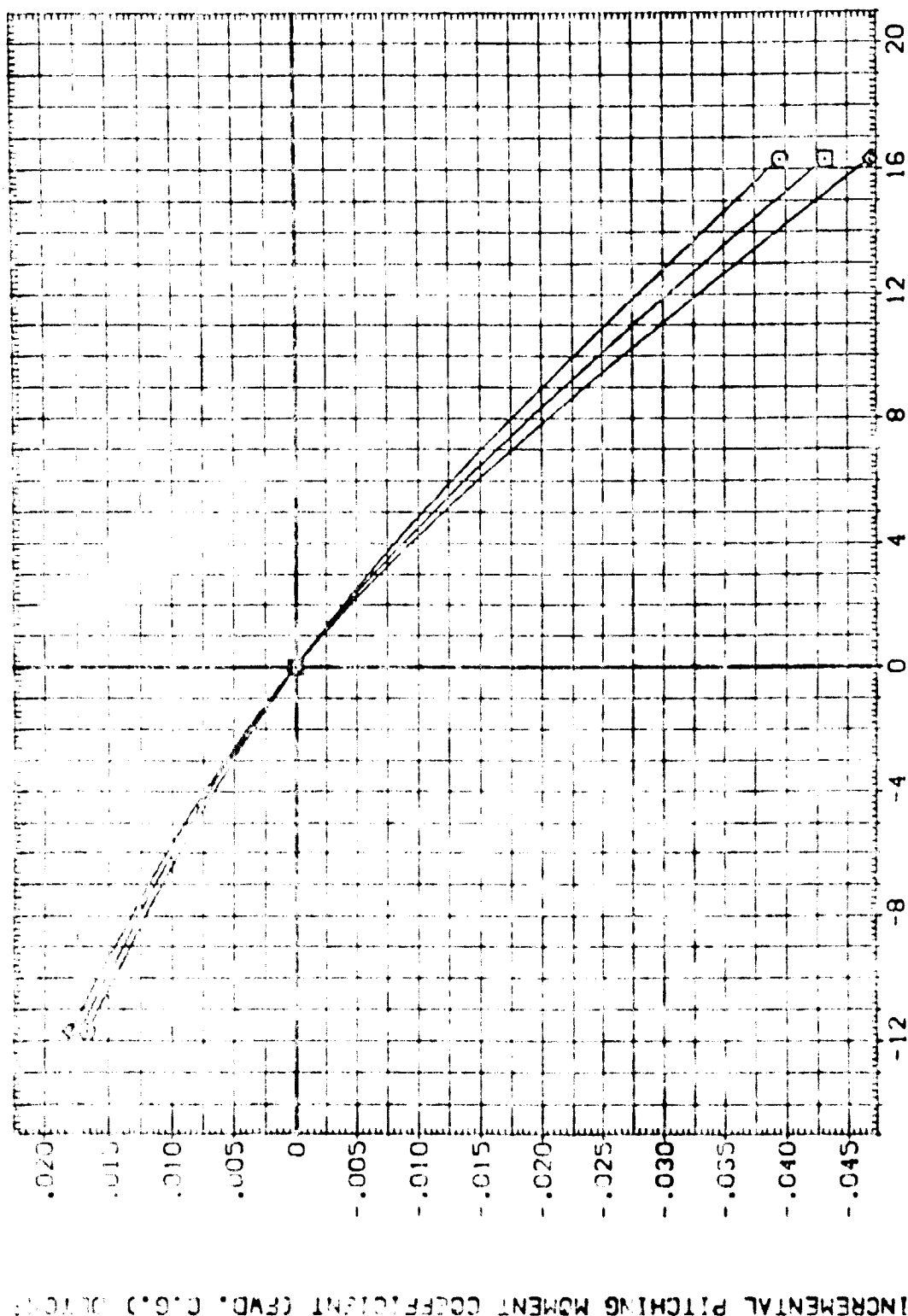


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	BETA	ELV	DATASET	DLBOFP	DATASET	DLBOFP	SREF	SO.FT.
□	17.000	ELV-L0	.000	ELV-L1	.000	DTW059	.000	DTW057	474.8100	IN.
◇	19.000	ELV-R1	.000	ELV-R0	.000	DTW058	.000	DTW058	525.6800	IN.
△	21.000	SP00BK	56.000	RUDER	.000				1076.6800	IN.
▽	23.000	RV/L	.500						375.0000	IN.
◇	25.000								375.0000	IN.
▽	27.000								375.0000	IN.
									SCALE	.0150

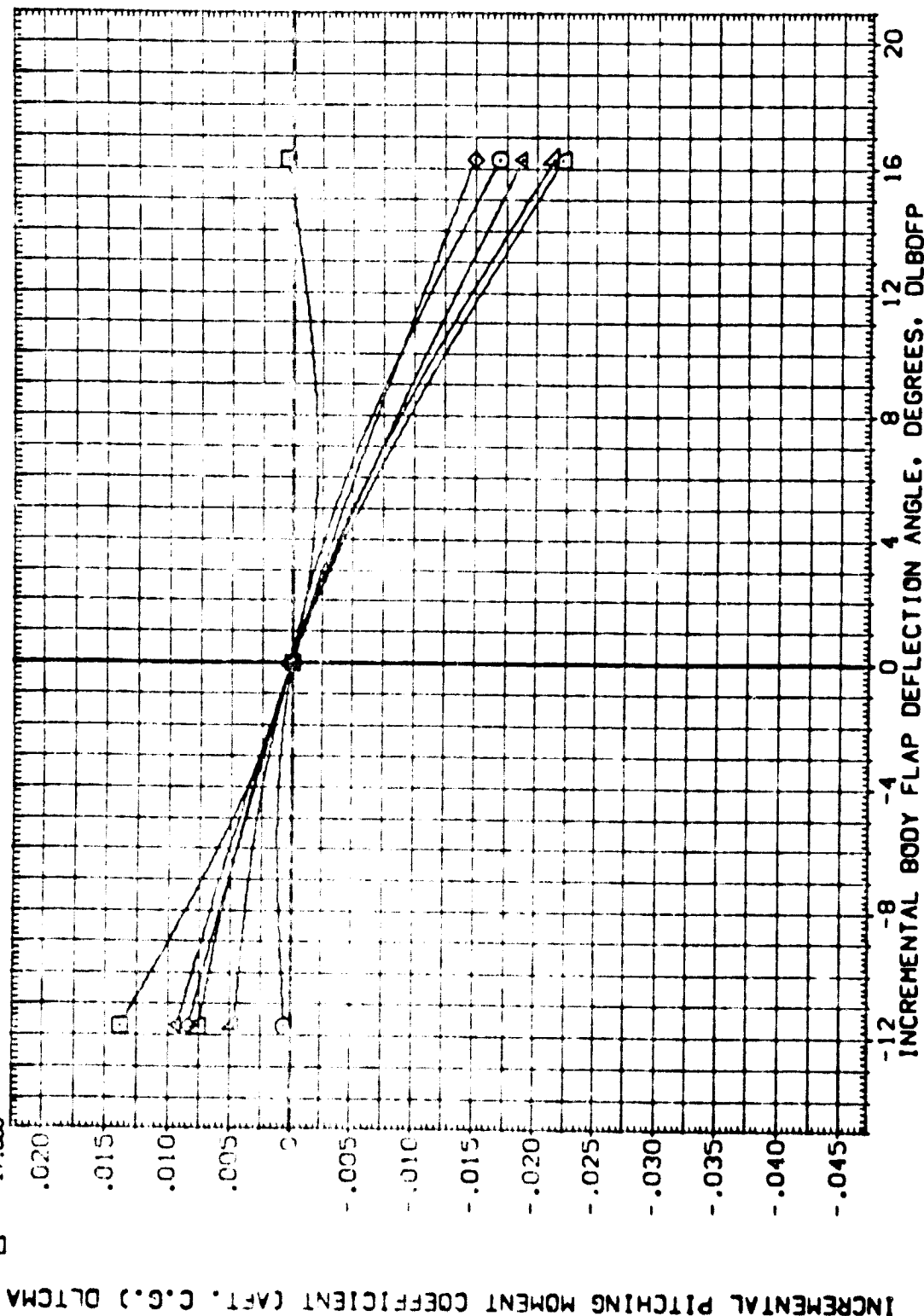


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (OTW059)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	BETA	.000	DATASET	SREF	SG.FT.
29.000	8.000	.000	.000	DLBOFP	474.8100	IN.
31.000	ELV-L0	ELV-L1	.000	DIV057	936.6800	IN.X0
33.000	ELV-R1	ELV-R0	.000		1076.6500	IN.Y0
35.000	CLARK	RUDDER	.000		375.0000	IN.Z0
37.000	RM/L	.500			SCALE	.0150
39.000						

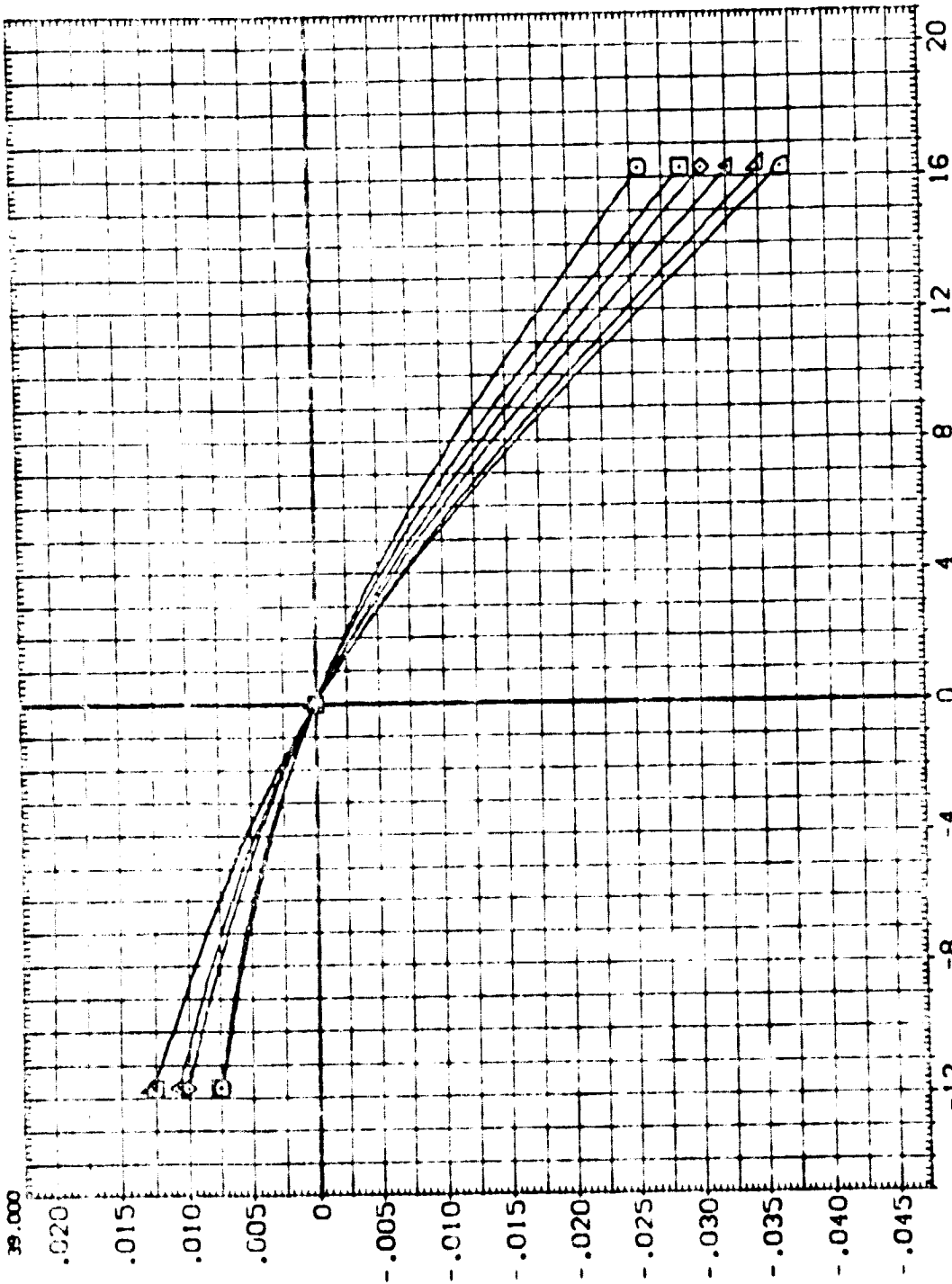


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

**SYMBOL**

41.000  
43.000  
45.000

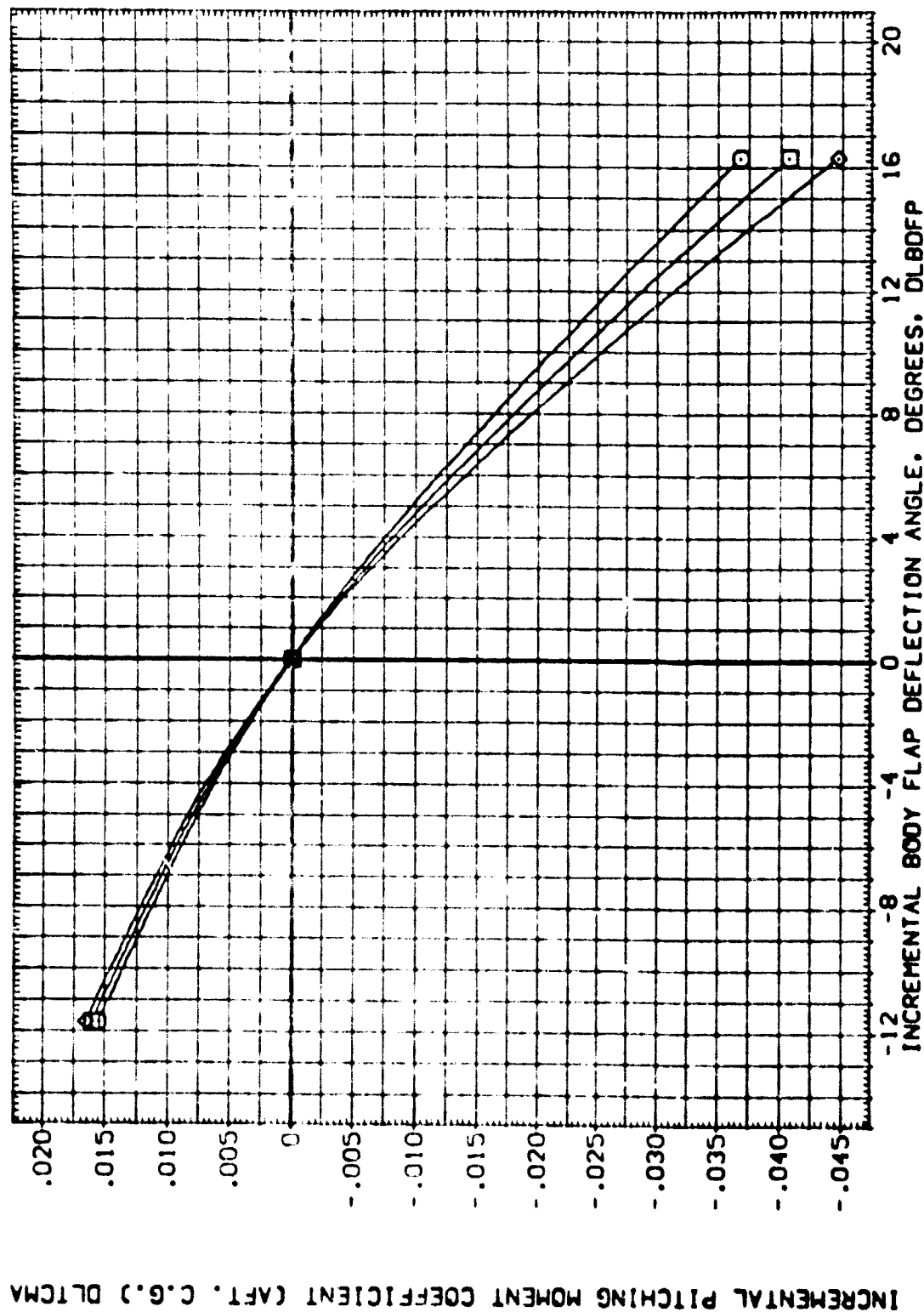
WALL  
SPRINGS  
H-AT3  
H-AT3  
HOM

PARAMETRIC VALUES	
BETA	0.000
ELV-L1	.000
ELV-R0	.000
RUDDER	\$6.000
	.500

	DATASET	DATA SOURCE
0.000	DL80FP	
0.000	D1V059	-11.700
0.000	D1V058	16.300
0.000		

DLBDFP  
SREF  
LREF  
SREF  
YTRP  
YTRP  
ZTRP  
SCALE

REFERENCE INFORMATION	SQ.FT.
2690.0000	IN.
474.8100	IN.
936.6800	IN.
1016.5300	IN.
0.0000	IN.
375.0000	IN.
0150	IN.



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
17.000	MACH	.000 DATASET	SREF 2630.0000 SQ.FT.
19.000	ELV-L0	.000 DTW059	LREF 474.8100 IN.
21.000	ELV-R1	.000 DIV058	BREF 936.6800 IN.
23.000	ST000K	.000	XREF 1076.6800 IN.
25.000	RAVL	.000	YREF 375.0000 IN.
27.000			ZREF .0150 IN.
			SCALE

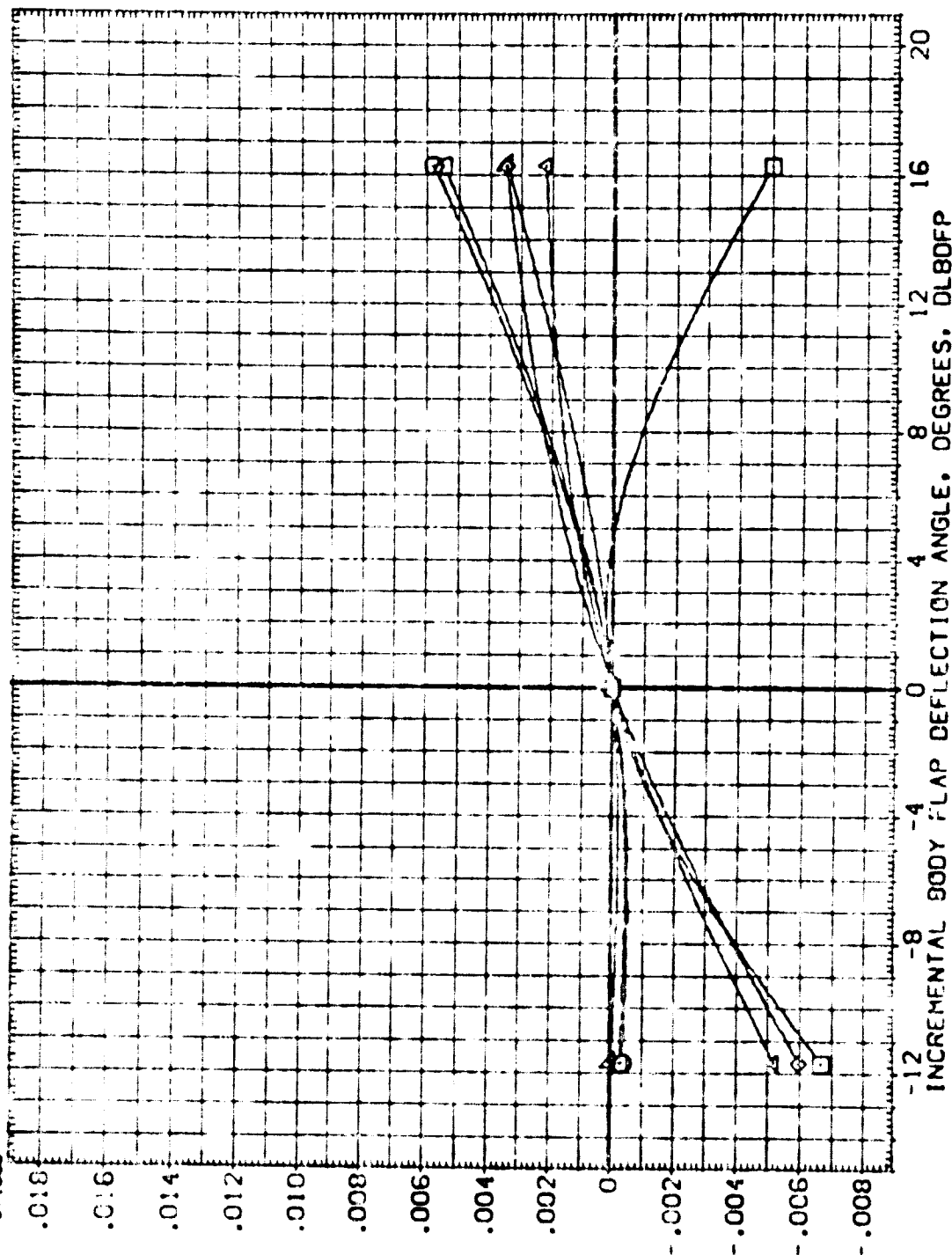


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)



0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
29.000	ELV-L0	8.000 BETA	.000 DATASET	SREF 2690.0000
31.000	ELV-L1	.000 ELV-L1	.000 DTW059	LREF 474.8100
33.000	ELV-R1	.000 ELV-R0	.000 DTW058	BREF 936.8800
35.000	STICK	56.000 RUDDER	.000	XREF 1076.6800
37.000	RVAL	.500	.000	YREF .0000
39.000			.000	ZREF 375.0000
				SCALE .0150

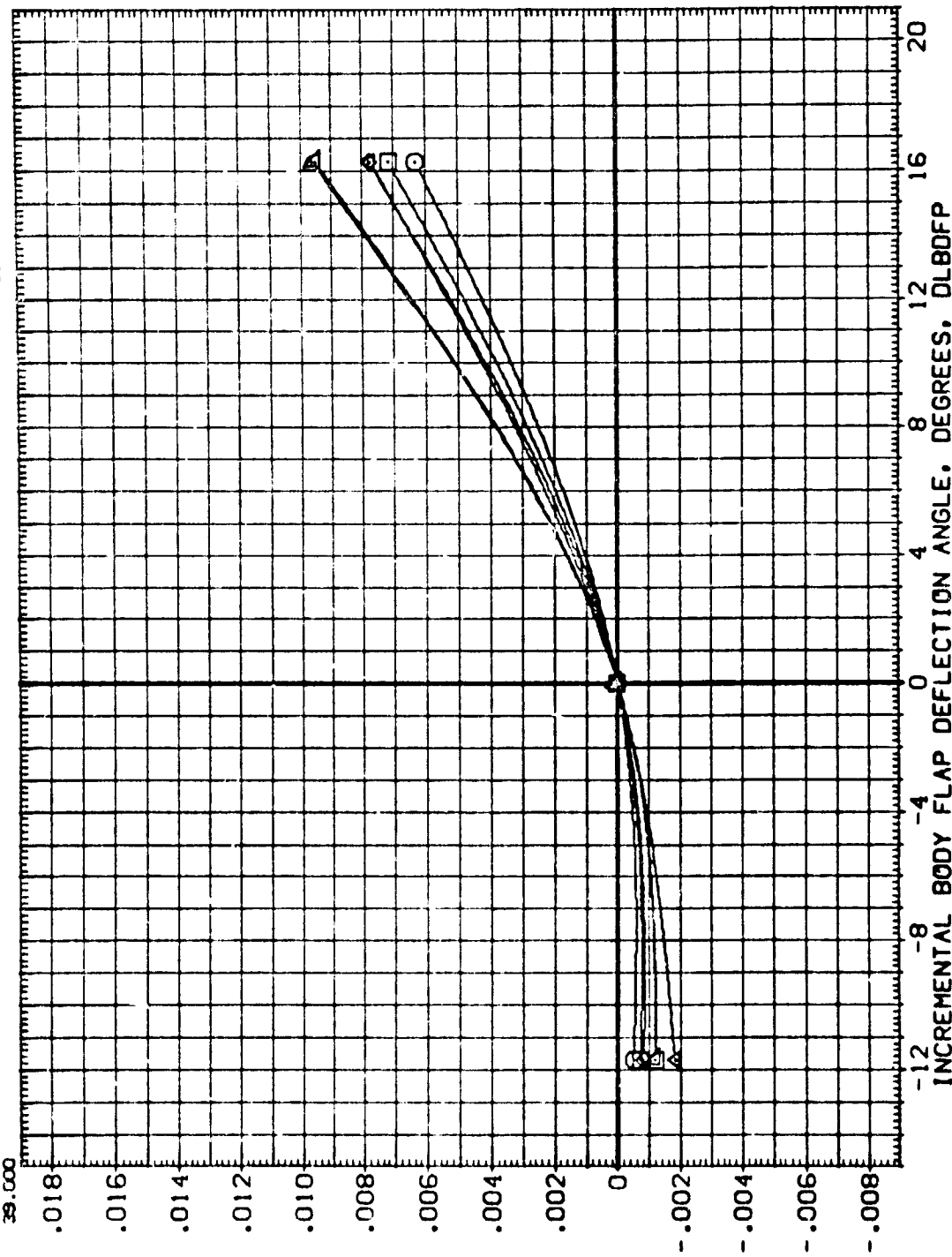


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

(DTW059)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL  
◇  
□  
◇

ALPHA  
41.000  
43.000  
45.000

MACH  
ELV-L0  
ELV-R1  
SP000X  
RV/L

PARAMETRIC VALUES  
8.000 BETA  
.000 ELV-L1  
.000 ELV-R0  
55.000 RUDDER  
.500

DATA SOURCE  
DLBDFP  
-11.700  
16.300

DATASET  
DTW059  
DTW058  
DTW057

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
XREF  
YREF  
ZREF  
SCALE

2690.0000  
474.8100  
936.6800  
1076.5300  
.0000  
375.0000  
.0150

50.FT.  
IN.  
IN.  
IN.X0  
IN.Y0  
IN.Z0

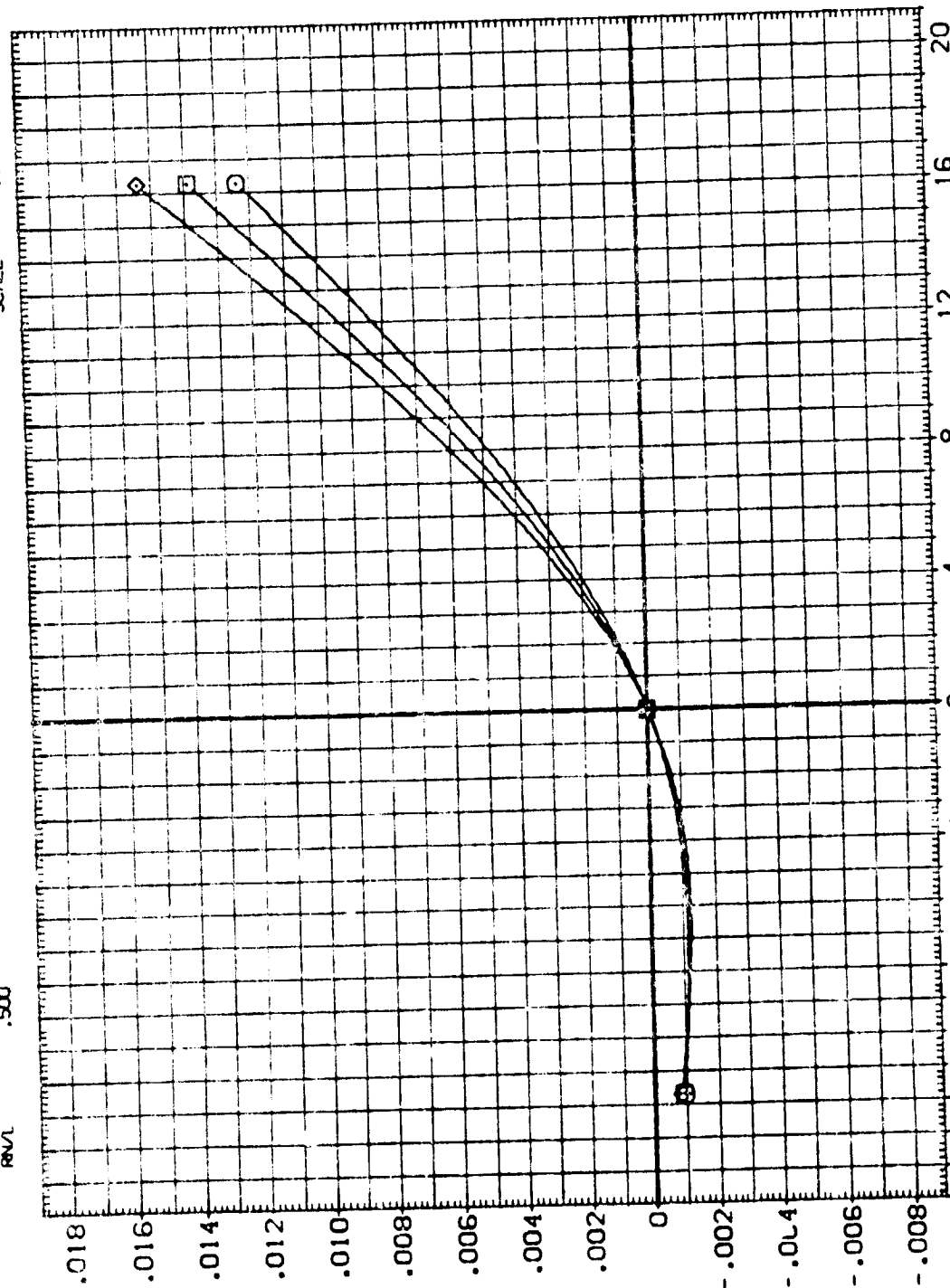


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

SYMBOL  
 □  
 ◇  
 △  
 ▽  
 ▽

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
17.000		BETA	DLBOFP	2690.0000 SQ.FT.
19.000	ELV-L0	.000	DLBOFP	474.8100 IN.
21.000	ELV-R1	.000	DLBOFP	936.5800 IN.
23.000	SPOBRK	.000	DLBOFP	1076.5800 IN.
25.000	RV/L	.500	DLBOFP	375.0000 IN.
27.000			DLBOFP	375.0000 IN.
			SCALE	.0150

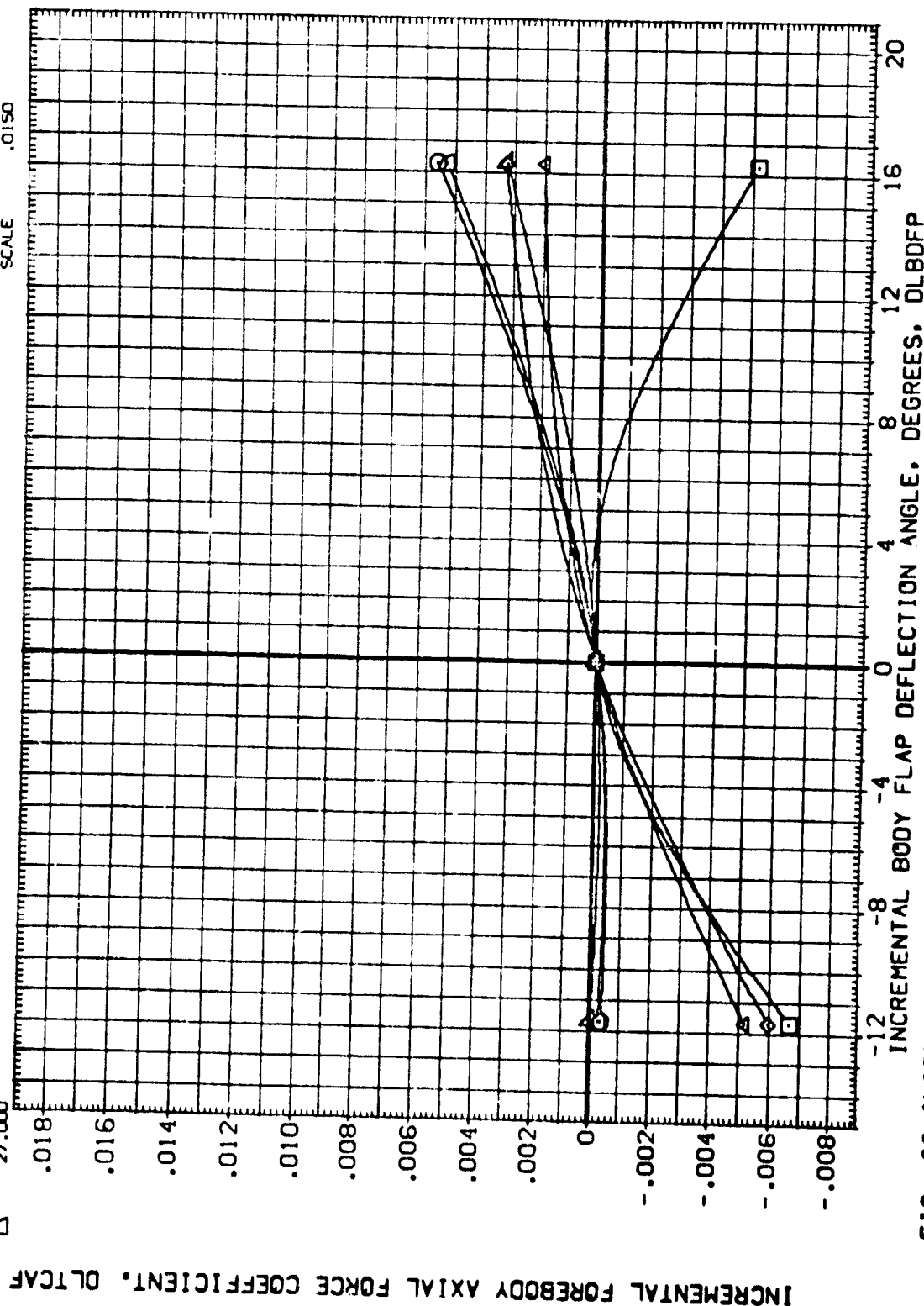


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

SYMBOL	ALPHA	MAOH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	29.000	ELV-L0	8.000 BETA	.000 DATASET	2630.0000 SQ.FT.
◇	31.000	ELV-L1	.000 ELV-L1	.000 DTW059	474.8100 IN.
◇	33.000	ELV-R1	.000 ELV-R0	.000 DTW058	936.6800 IN. X0
◇	35.000	SPUDPK	55.000 Z-LEDER	.000	1075.5800 IN. Y0
◇	37.000	RNVL	.500	.000	375.0000 IN. Z0
◇	39.000			SCALE	.0150

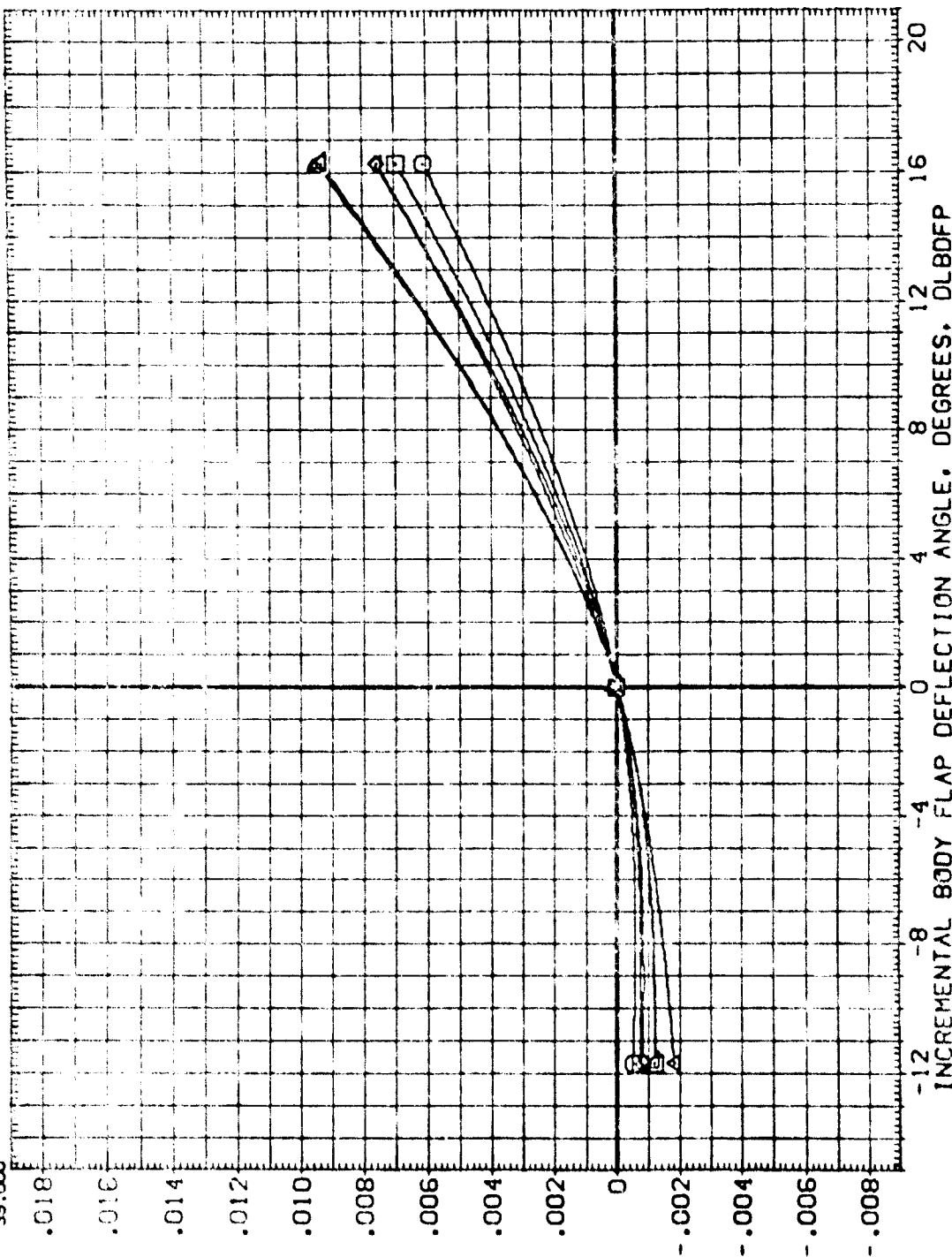


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0A79 826 C9 E43 F8 M16 N28 R5 V8 W116 (DTWD59)

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HACH  
ELV-LO  
ELV-RI

HACH  
ELV-LO  
ELV-RI

HACH  
ELV-LO  
ELV-RI

HACH  
ELV-LO  
ELV-RI

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ELV-RI

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ELV-RI

HACH  
ELV-LO  
ELV-RI

HACH  
ELV-LO  
ELV-RI

HACH  
ELV-LO  
ELV-RI

PIRAMETRIC VALUES

8,000	SEIA
1,000	ELVA-41
1,000	ELVA-71

8,000	SEIA
1,000	ELVA-41
1,000	ELVA-71

8,000	SEIA
1,000	ELVA-LI
1,000	ELVA-LI

8,000	SEIA
1,000	ELVA-LI
1,000	ELVA-LI

8,000	SEIA
1,000	ELVA-LI
1,000	ELVA-LI

8,000	SEIA
1,000	ELVA-LI
1,000	ELVA-LI

8,000	SEIA
1,000	ELVA-LI
1,000	ELVA-LI

8,000	SEIA
1,000	ELVA-LI
1,000	ELVA-LI

8,000	SEIA
1,000	ELVA-LI
1,000	ELVA-LI

50

LEOFF  
-11.700  
16.300

LEOFF  
-11.700  
16.300

LEOFF  
-11.700  
16.300

LEOFF  
-11.700  
16.300

Q. 505 P

Q-505P

# RESEARCH INFORMATION

269,000  
474,8100  
35,3800

269,000  
474,8100  
35,3800

269,000  
474,8100  
35,3800

269,000  
474,8100  
35,3800

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269,000  
474,8100  
35,3800

269,000  
474,8100  
35,3800

269,000  
474,8100  
35,3800

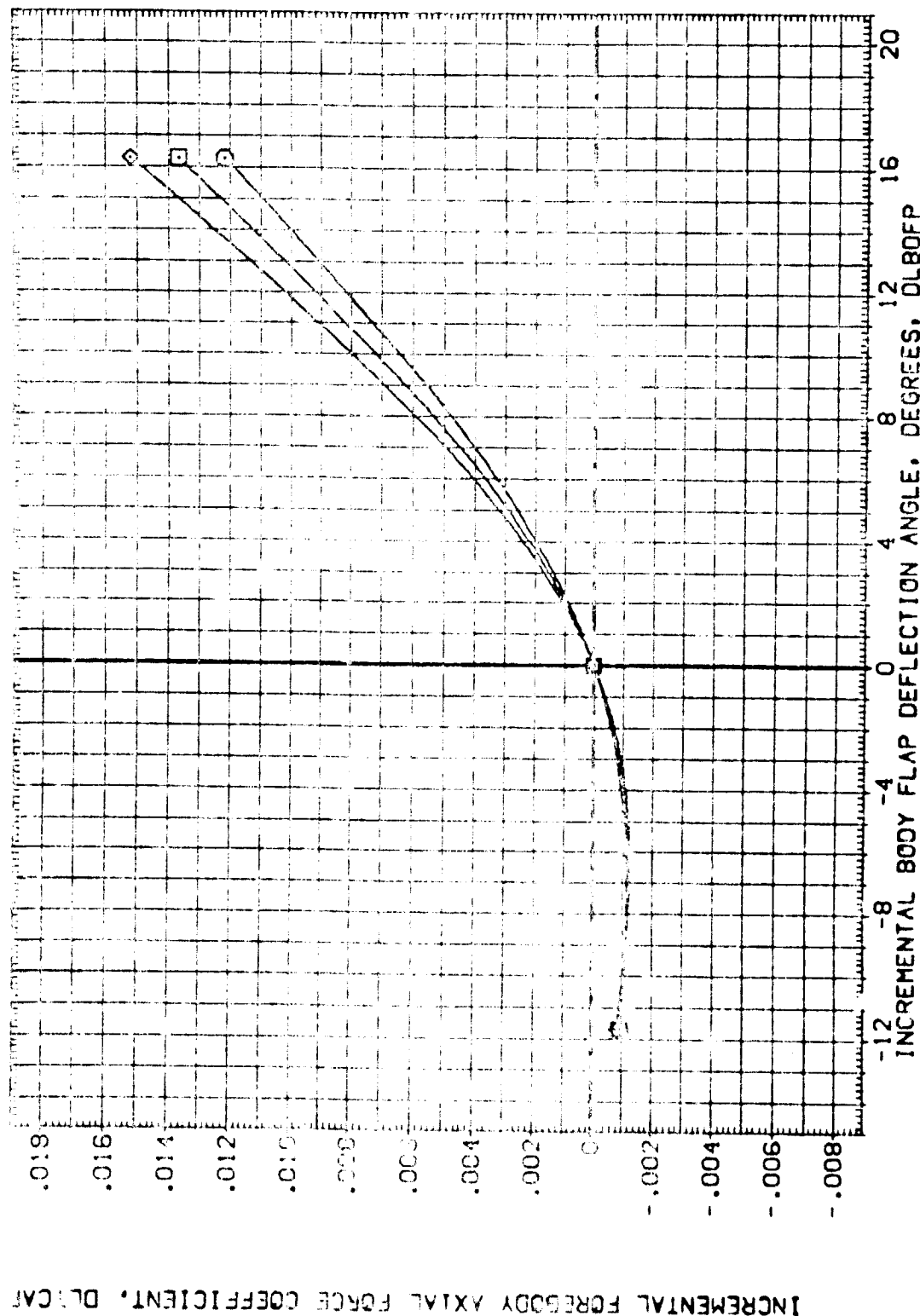


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 0.50)

(DTW059)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

REFERENCE INFORMATION  
 SREF 2630.0000 50. FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XREF 1076.6800 IN.  
 YREF 0.0000 IN.  
 ZREF 375.0000 IN.  
 SCALE 0.150

DATA SOURCE  
 DL8DFP  
 DTW057

PARAMETRIC VALUES  
 BETA  
 ELV-L1  
 ELV-R0  
 RAJDER  
 .500

MACH  
 ELV-L0  
 ELV-R1  
 SP052K  
 NSVL  
 .500

ALPHA  
 17.000  
 19.000  
 21.000  
 23.000  
 25.000  
 27.000

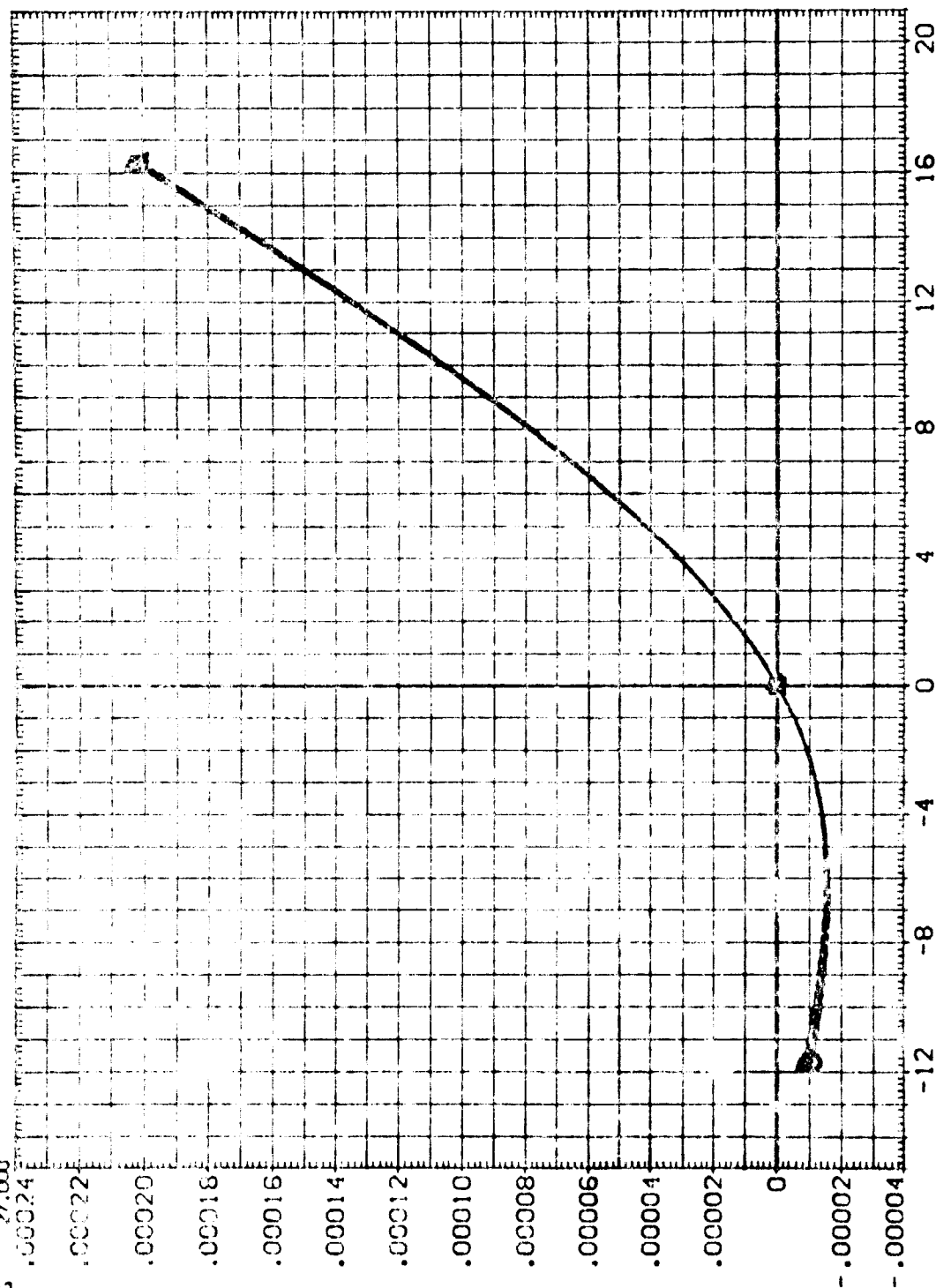


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0179 826 C9 E43 F8 M16 N28 R5 V8 \*116  
(DT#059)

STRECH	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE IN CUBITICS			
	23.000	HACH	B.000	BETA	.000	DATASET	D.BOFF	D.BOFF	REF	250.000	IN. FT.		
□	31.000	ELV-L	.000	ELV-L	.000	DTW59	-11.700	.000	REF	474.800	IN. FT.		
◇	35.000	ELV-R	.000	ELV-R	.000	DTW58	16.300	.000	REF	346.900	IN. FT.		
△	35.000	SPDBK	55.000	CLDER	.000			.000	REF	1075.000	IN. FT.		
△	37.000	RIVE	.500		.000			.000	REF	375.000	IN. FT.		
									SCALE	.0150			

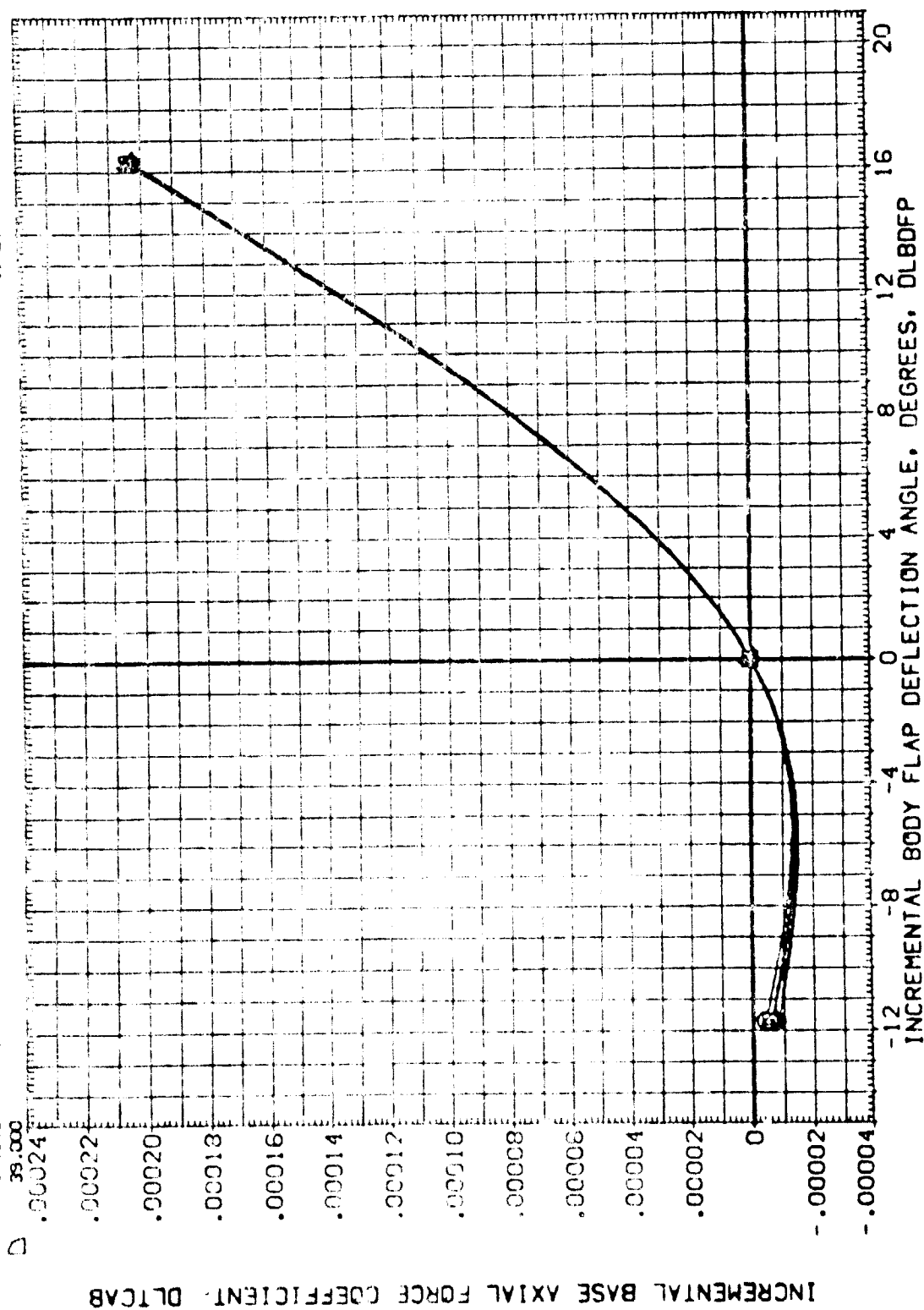


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER = 0.50)

(DTW059)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	DLBDFP	SREF	REFERENCE INFORMATION
○	11.000		8.000 BETA	.000 DATASET	.000 DLBDFP	.000 SREF	2690.0000	50.FT.
□	43.000	ELV-L0	.000 ELV-L1	.000 DTW059	.000 DTW057	.000 LREF	474.8100	IN.
◇	43.000	ELV-R1	.000 ELV-R0	.000 DTW058	.000 DTW058	.000 YREF	936.6900	IN.
		SPDRK	55.000 RUDDER	.000	.000	.000 ZREF	1075.6200	IN.
		RV/L	.500	.000	.000	.000	375.0000	IN.
						.000	.0150	IN.
								SCALE

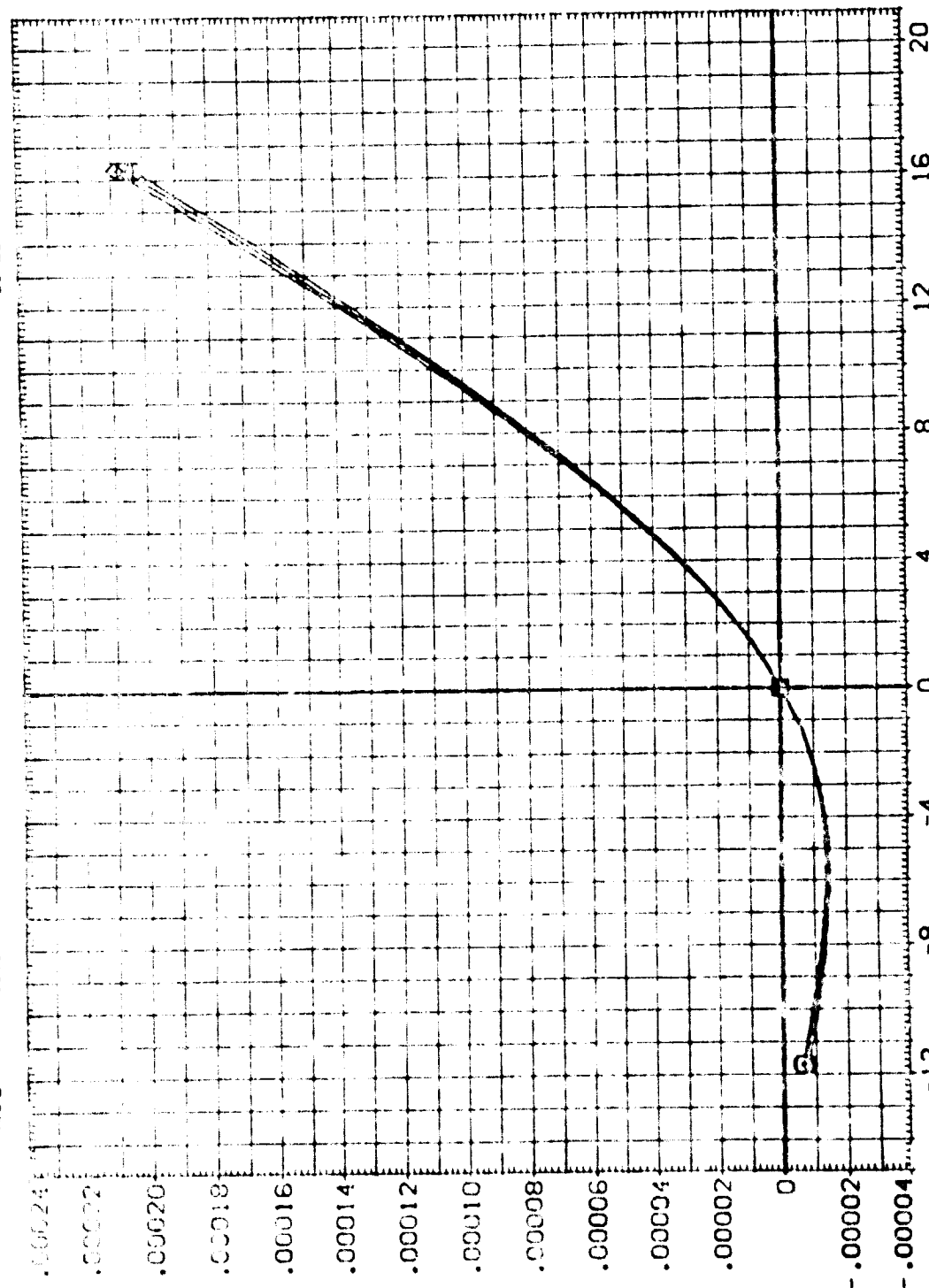


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)



(DTW059)

GA79 926 C9 E43 F8 M16 N28 R5 V8 W116

SYMBOL

ALPHA  
17.000  
19.000  
21.000  
23.000  
25.000  
27.000

PARAMETRIC VALUES  
WAZA 19.20  
ELEV 0.0  
FLY 0.0  
FLY RO 0.0  
RULER 0.0

DATA SOURCE  
DLBOFP  
-11.00  
16.00

DATASET  
DTW059

ULBOFP  
0.000

REFERENCE INFORMATION  
X, Y, Z  
IN, IN, IN  
100.0000  
474.8100  
854.8400  
100.0000  
100.0000  
375.0000  
7440  
SCALE 10.000

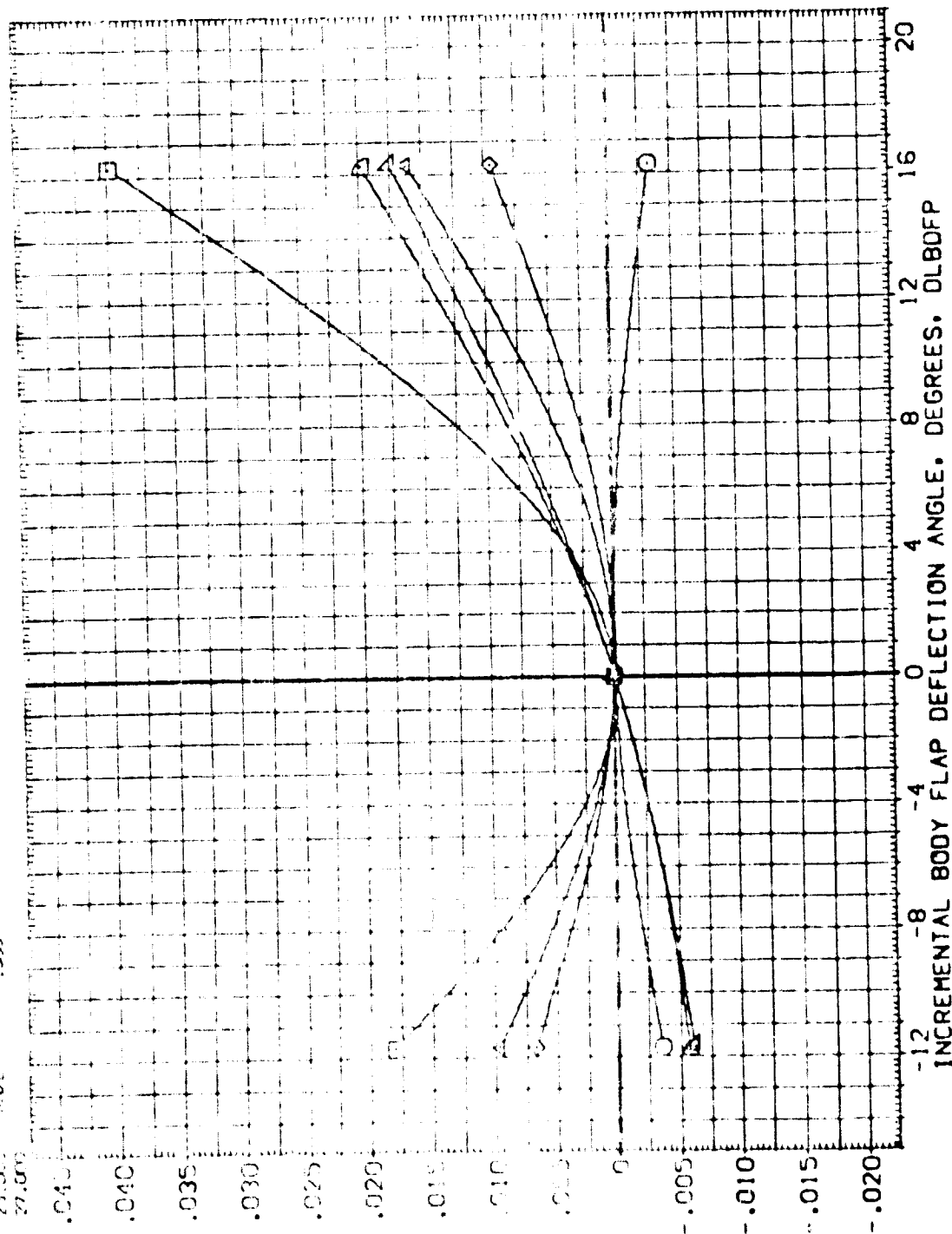


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

SYMBOL		ALPH.		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION			
○	□	79.000	MACH	8.000	BETA	.000	DATASET	DLBOFP	SREF	2690.0000	SO.FT.
◇	□	31.000	ELV-L0	.000	ELV-L1	.000	DTW059	-11.700	LBREF	474.8100	IN.
△	□	33.000	ELV-R1	.000	ELV-R0	.000	DTW058	16.300	BRF	936.6800	IN.
△	△	35.000	STOBER	55.000	RUNNER	.000	DTW058		XHAPP	1075.6800	IN.X0
△	△	37.000	RVL	.500		.000			Y130	1075.6800	IN.Y0
△	△	39.000							ZHAPP	375.0000	IN.Z0
									SCALE	.0150	

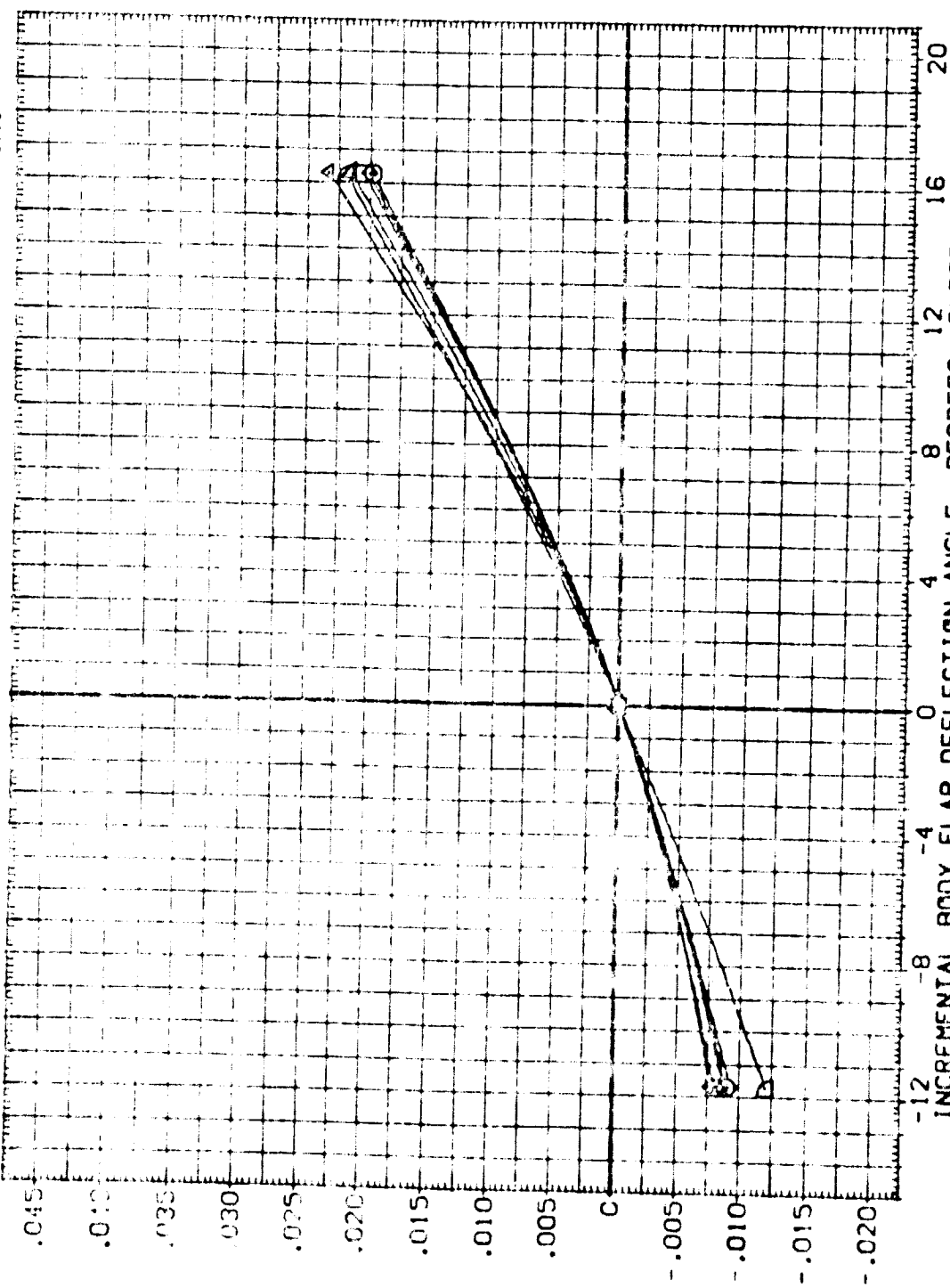


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

0A79 826 C9 543 F8 M16 N28 P5 V8 W116 (DTW059)

SOURCE		ALPHA		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
0	41.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	42.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	43.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SCALE		R/L		500		SCALE		SCALE	

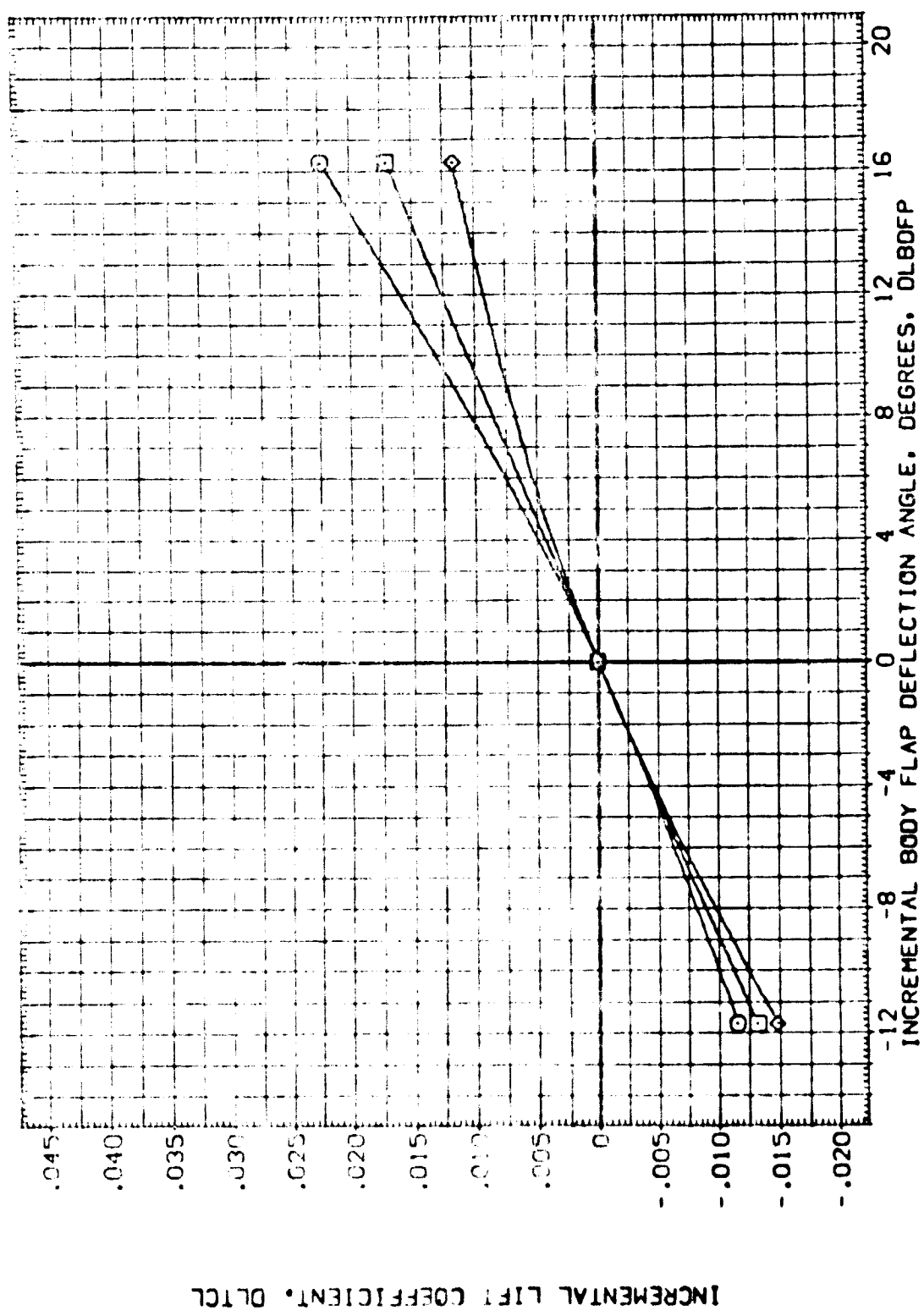


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)





0A79 B26 C9 E43 F8 M16 N28 R5 V8 W116 (DTW059)

PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION						
ALPHA	41.000	MACH	8.000	BETA	.000	DATASET	DLBDFP	DLBDFP	SRFF	2690.0000	SO.I.T.
	43.000	ELV-L3	.000	ELV-L1	.000	DTWO-9	-11.700	.000	LREF	474.8100	IN.
	45.000	FLY-R1	.000	FLY-R3	.000	DTWO-8	16.300		BREF	936.6300	IN.
		SPRINT	55.000	MACH-R	.000				THR	1076.0000	IN.YO
		DEL	.500						ZHRP	375.0000	IN.YO
									SCALE	.0150	IN.ZO

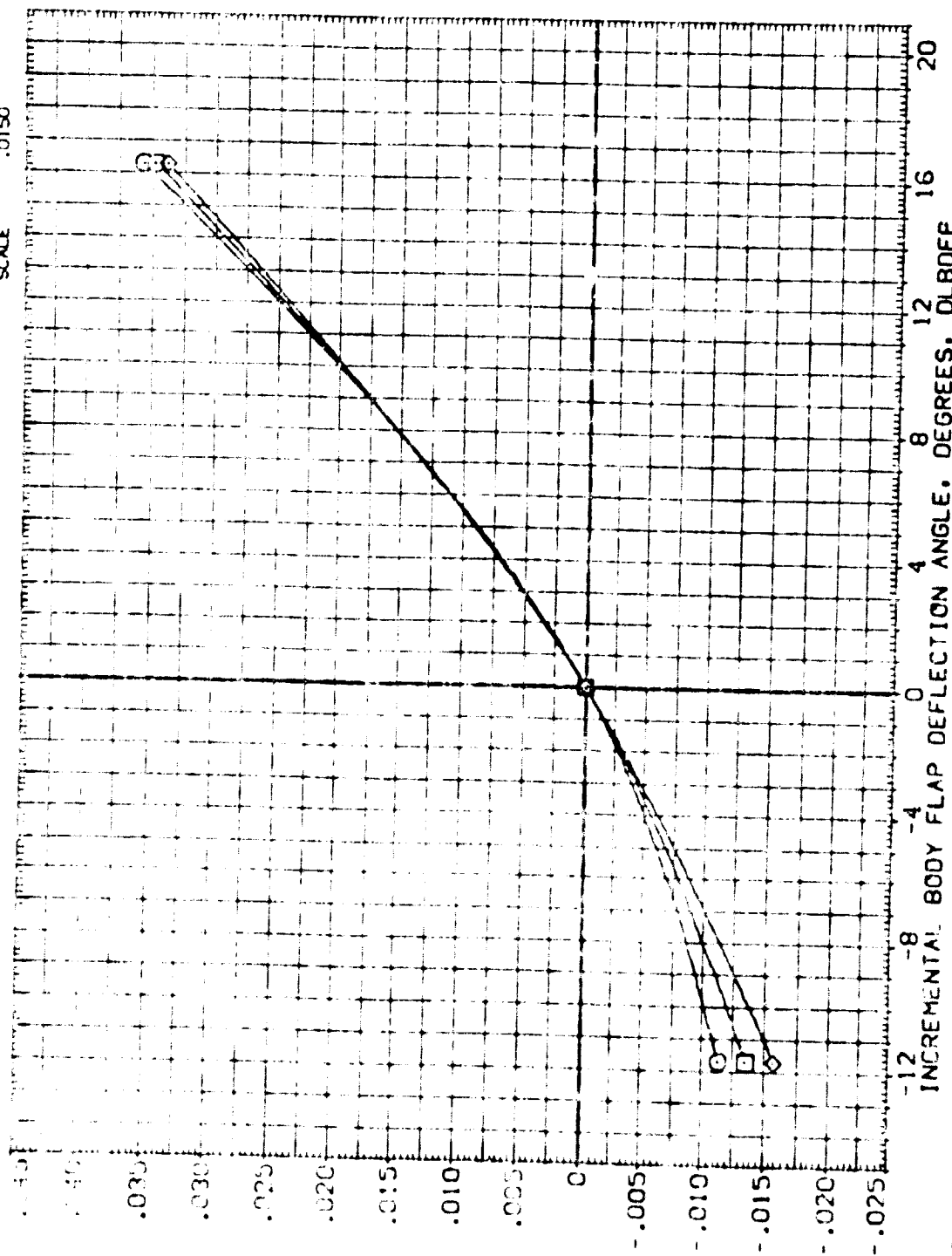


FIG. 20 INCREMENTAL EFFECTS OF BODY FLAP DEFLECTION (REYNOLDS NUMBER= 0.50)

DATA	DISP	BLV-L3	BLV-L1	PRICE	TIME
1.500	.000	.000	.000	2890.0000	11.00
1.800	.000	.000	.000	474.8100	13.00
2.500	.000	.000	.000	535.3200	12.00
				1075.0000	11.00
				375.0000	11.20
					SCALE

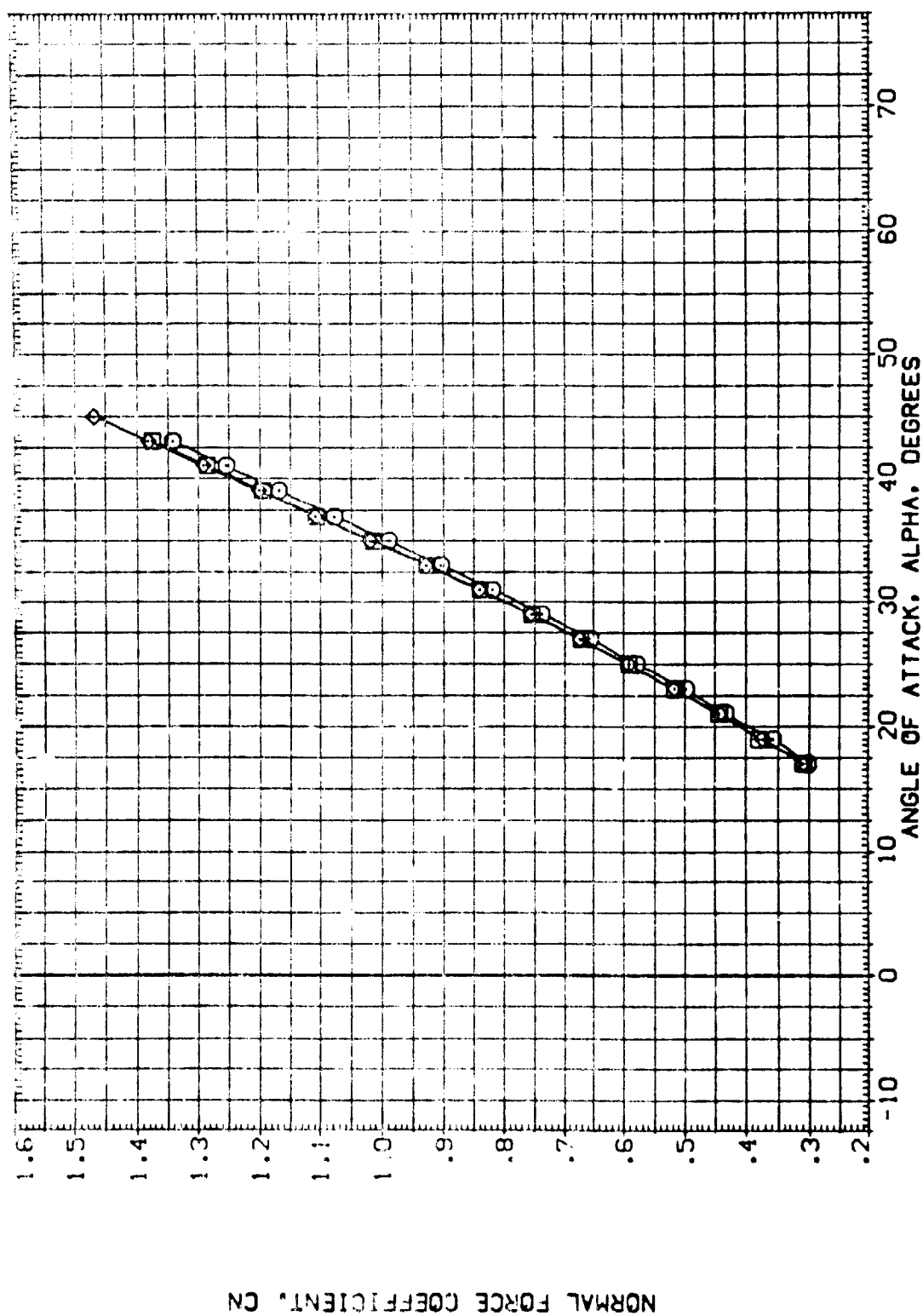


FIG. 21 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL  
 (SYMBOL)  
 (SYMBOL)  
 (SYMBOL)

CONFIGURATION DESCRIPTION  
 DAY9 926 C9 E43 F8 M16 N28 R3 V8 V116  
 DAY9 926 C9 E43 F8 M16 N28 R5 V8 V116  
 DAY9 926 C9 E43 F8 M16 N28 R6 V8 V116

RVL  
 .500  
 1.860  
 3.530

BOF AP  
 .000  
 .000  
 .000

ELV-L0  
 .000  
 .000  
 .000

REFERENCE INFORMATION  
 SREF 2630.0000 SQ.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XREF 1076.6800 IN.  
 YREF 375.0000 IN.  
 ZREF 0.0150 IN.

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C.G.) CL.MFWD

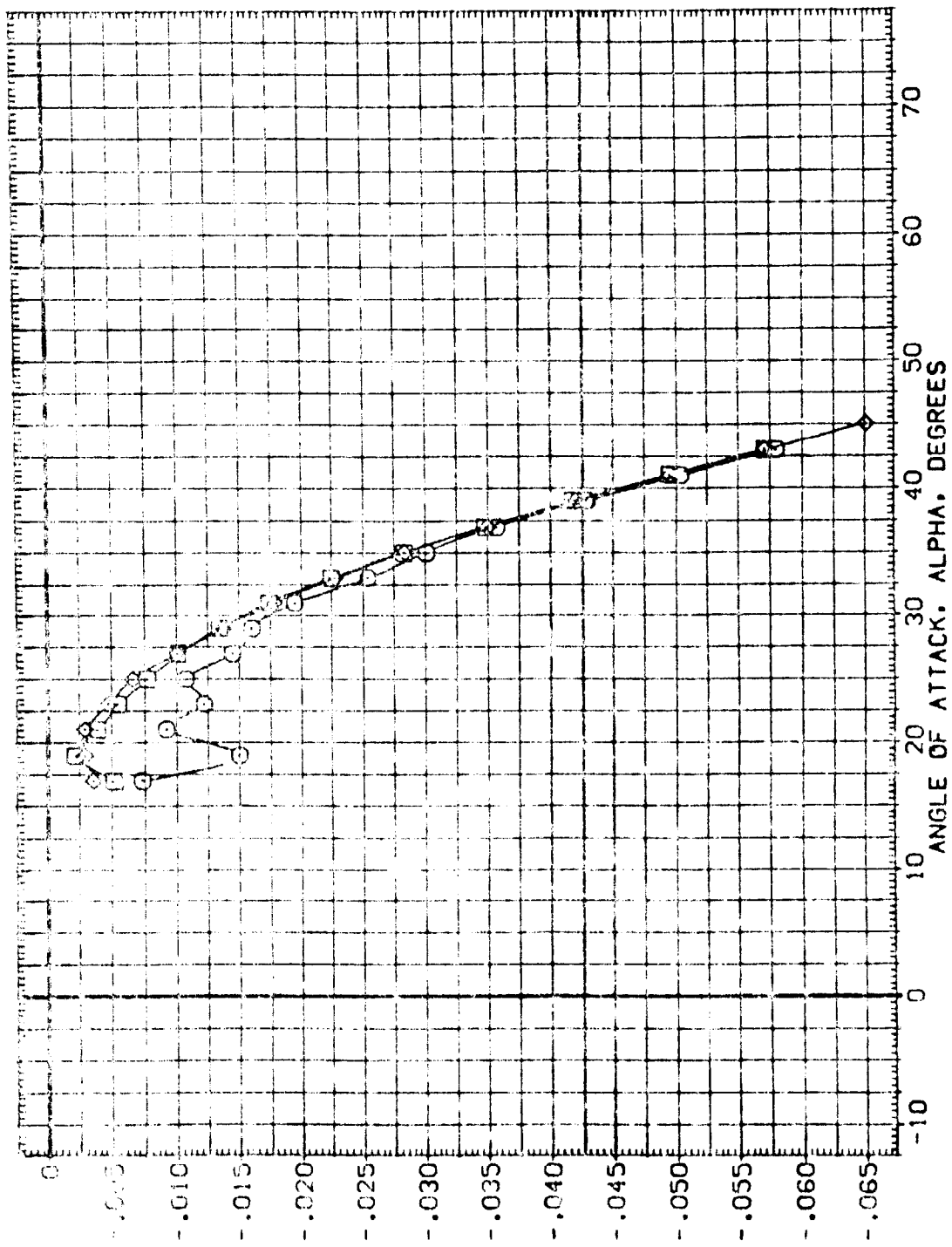


FIG. 21 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)

(A)MACH = 7.90



[illegible]

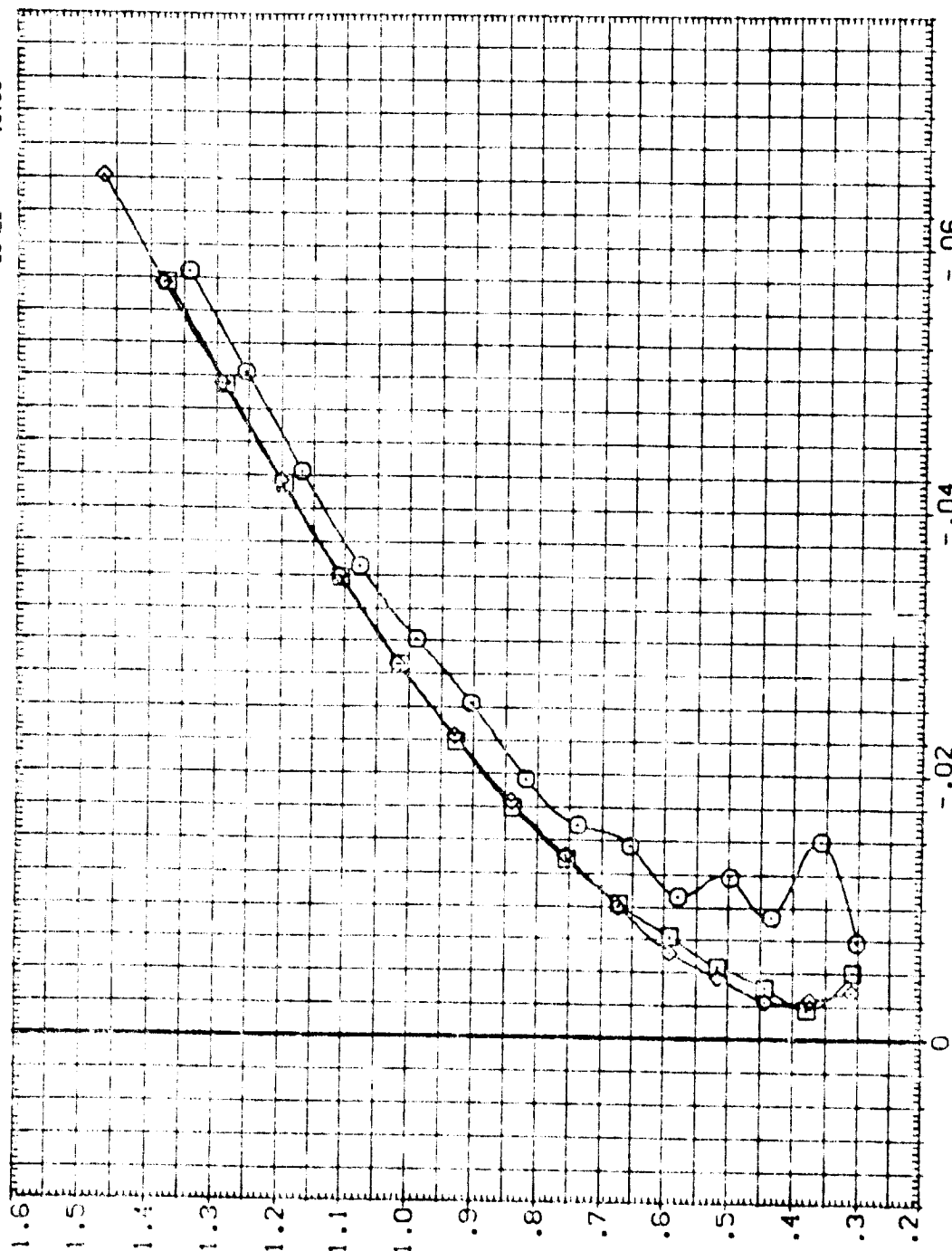
Figure 1 is a line graph with two data series plotted on a grid. The x-axis is labeled from -10 to 70 in increments of 10. The y-axis is labeled from -0.010 to 0.060 in increments of 0.005. The first series, represented by open circles, starts at approximately (15, 0.012), rises to a peak of about 0.038 at x=35, and then declines to 0.028 at x=65. The second series, represented by open squares, starts at approximately (15, 0.012), rises to a peak of about 0.035 at x=30, and then declines to 0.022 at x=65. Both curves are smooth and concave down after their respective peaks.

(A)MACH = 7.90



DATA SET 5-901

CONF	DESCRIPTION	RVL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
0A79	826 C9 E43 F8 M16 N28 R5 V8 V116	1.500	.000	.000	.000	SREF 2690.0000 SQ.FT.
0A79	826 C9 E43 F8 M16 N28 R5 V8 V116	1.860	.000	.000	.000	LREF 474.8100 IN.
0A79	826 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	.000	.000	BREF 936.6900 IN.
						XREF 1076.6600 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150



NORMAL FORCE COEFFICIENT, CN

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C. G.) CLMFWD  
 FIG. 21 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)

(A)MACH = 7.90

CONFIDENTIAL DECLASSIFIED



(A)MACH = 7.90



DATA SET 0100  
 (010001)  
 (010002)  
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 (010099)  
 (010100)

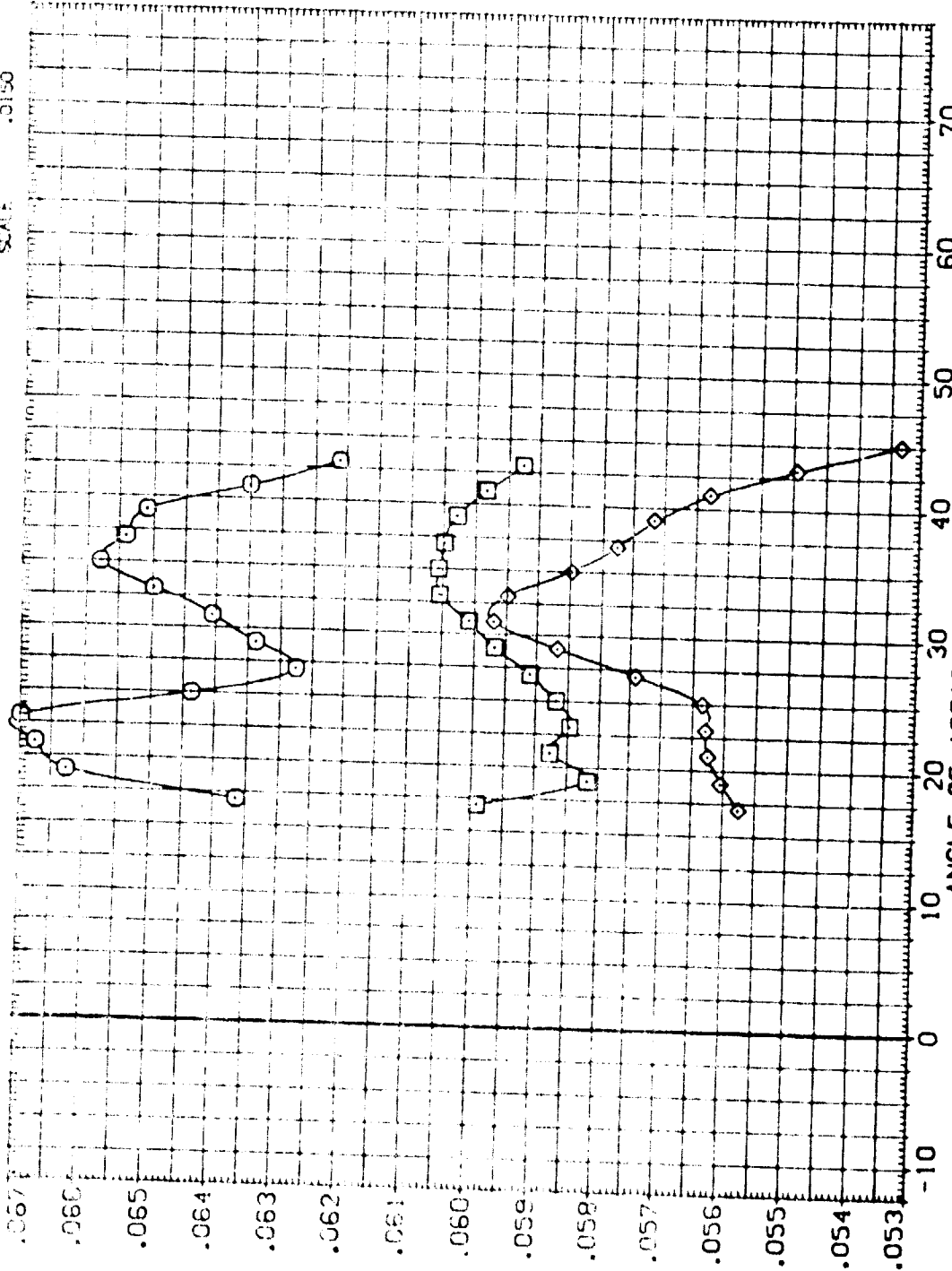


FIG. 21 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)  
 (A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1W027)	DATA B05 C3 E43 F8 M16 N28 P5 V8 V116	.500	.000	.000	SCALE 2650.0000
(C1W040)	DATA B05 C3 E43 F8 M16 N28 P5 V8 V116	1.850	.000	.000	SCALE 474.8100
(C1W001)	DATA B05 C3 E43 F8 M16 N28 P5 V8 V116	3.530	.000	.000	SCALE 936.6900
					SCALE 1076.6900
					SCALE 375.0000
					SCALE .0150

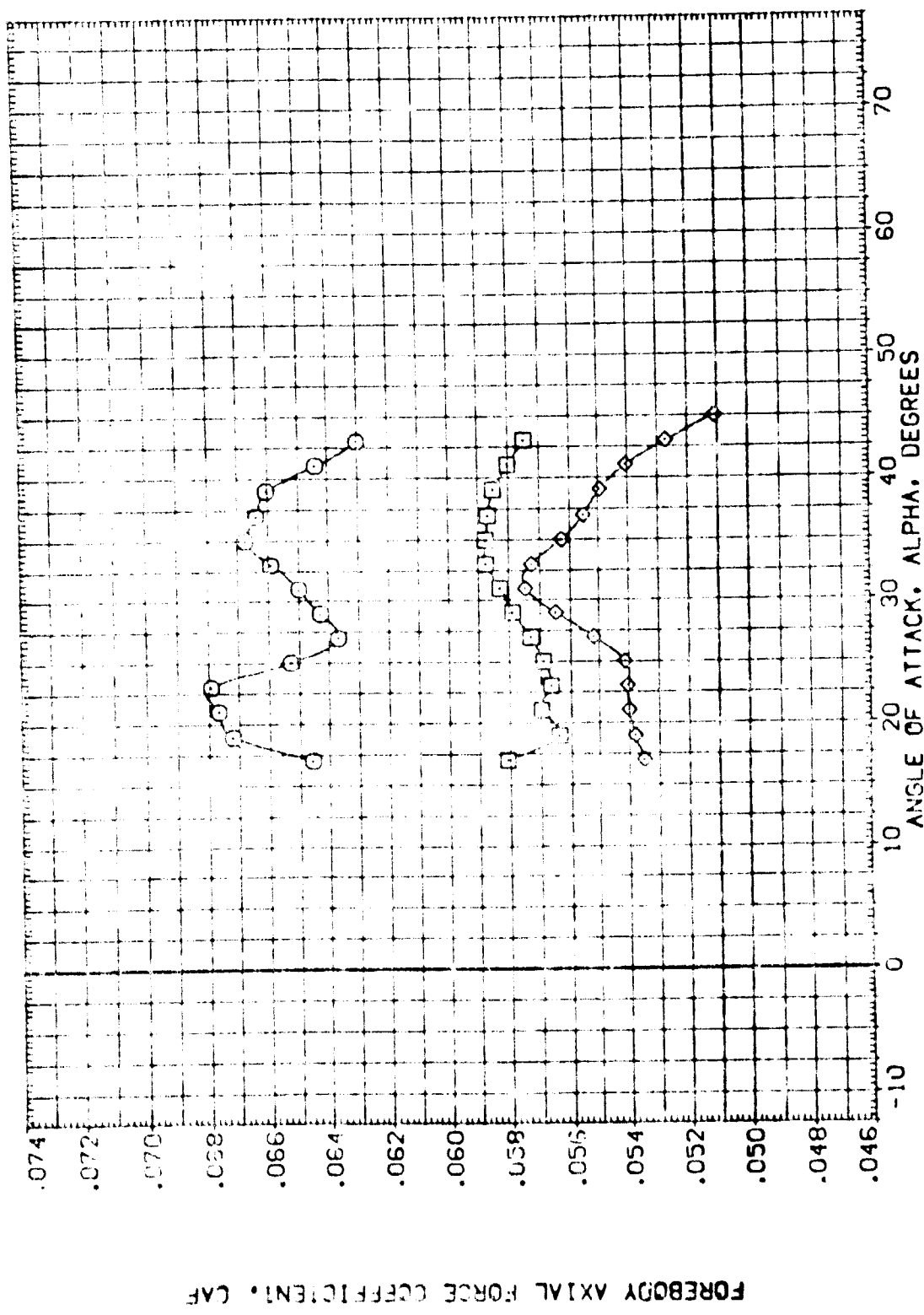


FIG. 21 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)

(A) MACH = 7.90

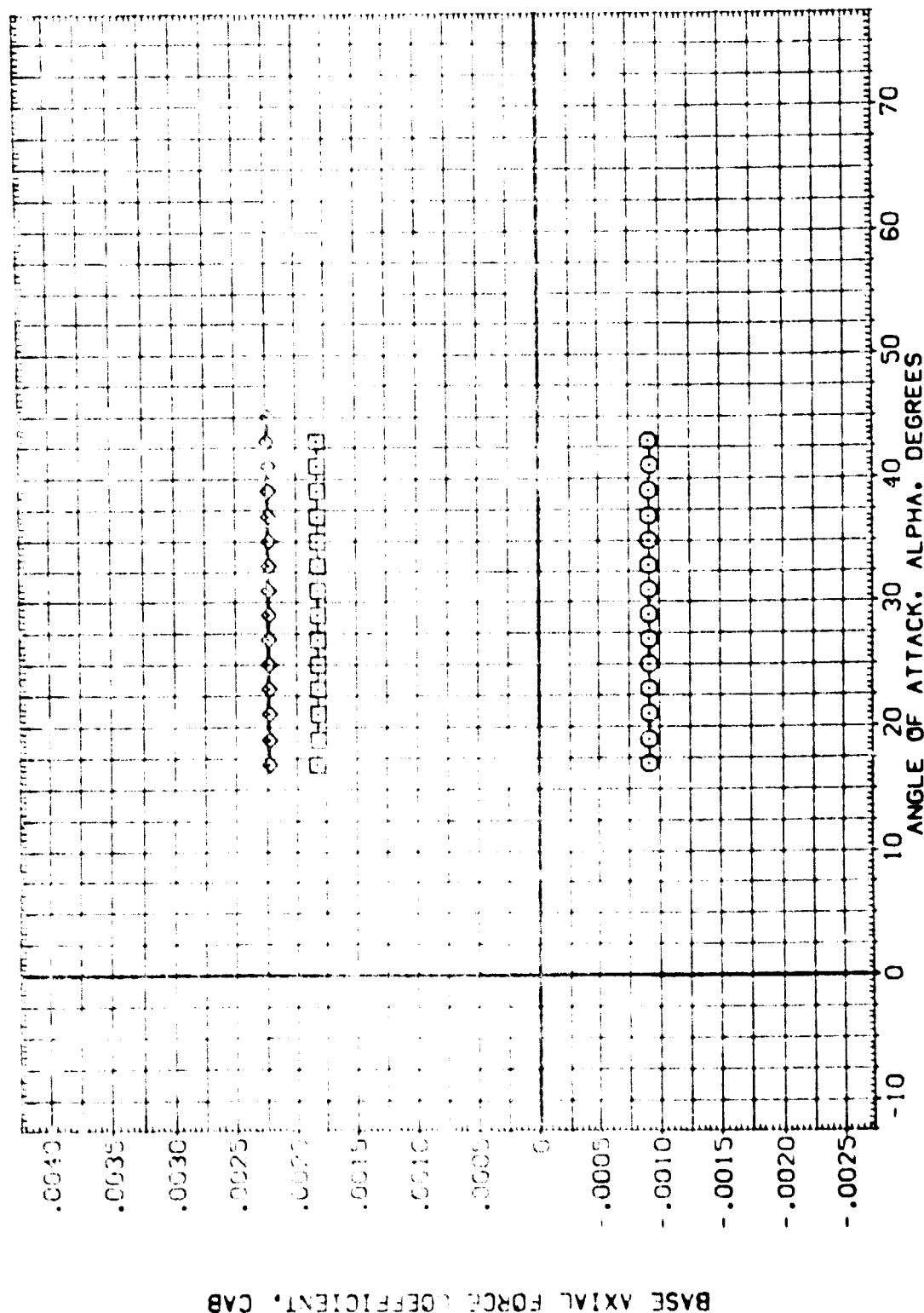
[illegible]

FIG. 21 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)

(A) MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(010002)	CA-9 B-26 C9 E43 FB M16 N49 R0 V8 V11.6	.500	.000	.000	.000	SREF 2650.0000 SQ.FT.
(010043)	CA-9 B-26 C9 E43 FB M16 N08 R5 V8 V11.6	1.860	.000	.000	.000	LREF 474.8100 IN.
(010001)	CA-9 B-26 C9 E43 FB M16 N08 R5 V8 V11.6	3.530	.000	.000	.000	BREF 936.6800 IN.
						XREF 1076.6800 IN. X0
						YREF 375.0000 IN. Y0
						ZREF 375.0000 IN. Z0
						SCALE .0150

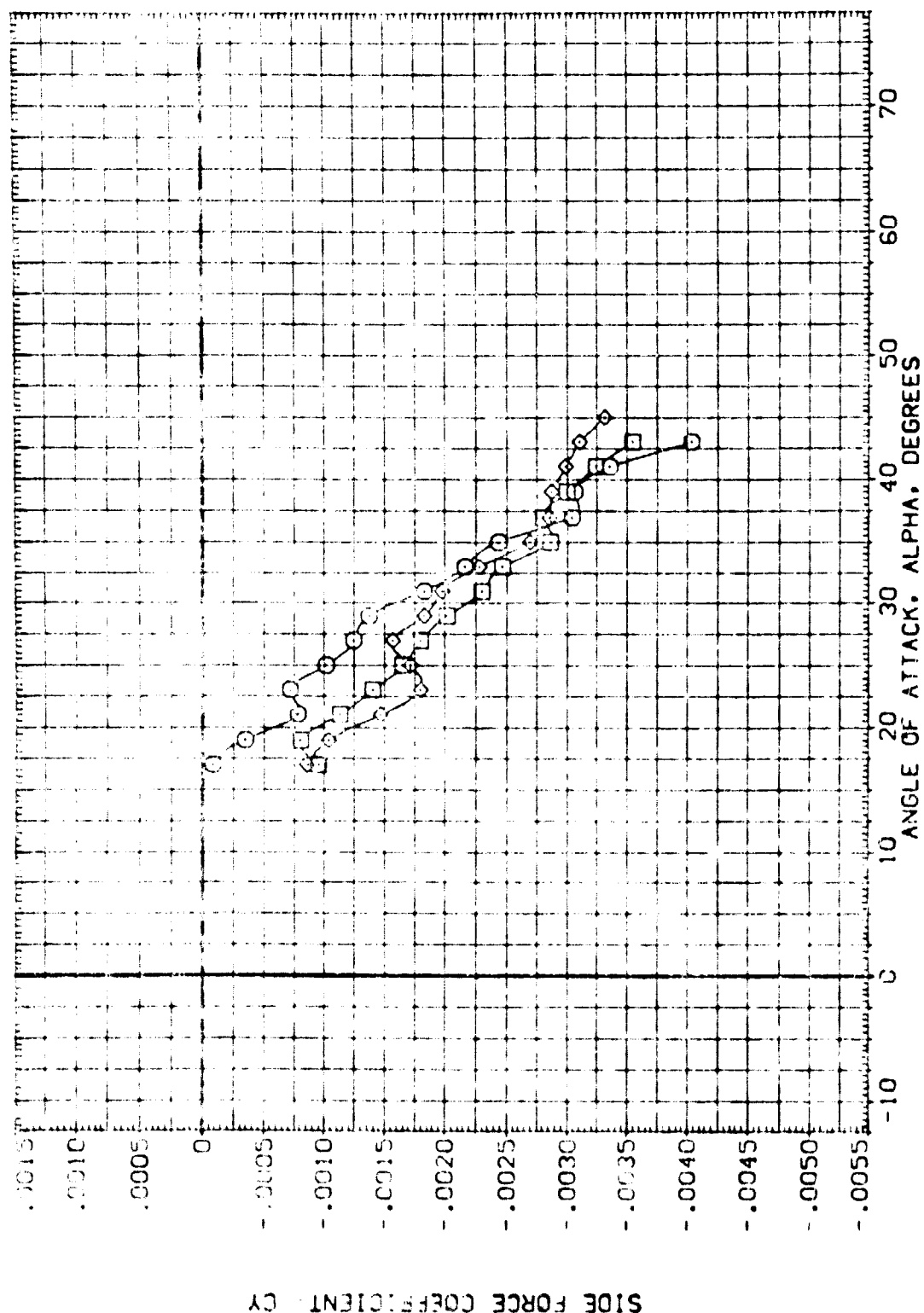
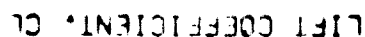


FIG. 21 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)

(A)MACH = 7.90



[illegible]

**(A)MACH = 7.90**



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(A) 0057	Q175 B06 C9 E43 F8 M16 N28 P5 V8 V116	.500	.000	.000	.000	SREF 2690.0000 50.FT.
(A) 0040	Q175 B06 C9 E43 F8 M16 N28 P5 V8 V116	1.860	.000	.000	.000	LREF 474.9100 IN.
(A) 0001	Q175 B06 C9 E43 F8 M16 N28 P5 V8 V116	3.530	.000	.000	.000	SREF 935.6900 IN.
						XREF 1076.5900 IN.
						YREF 375.0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

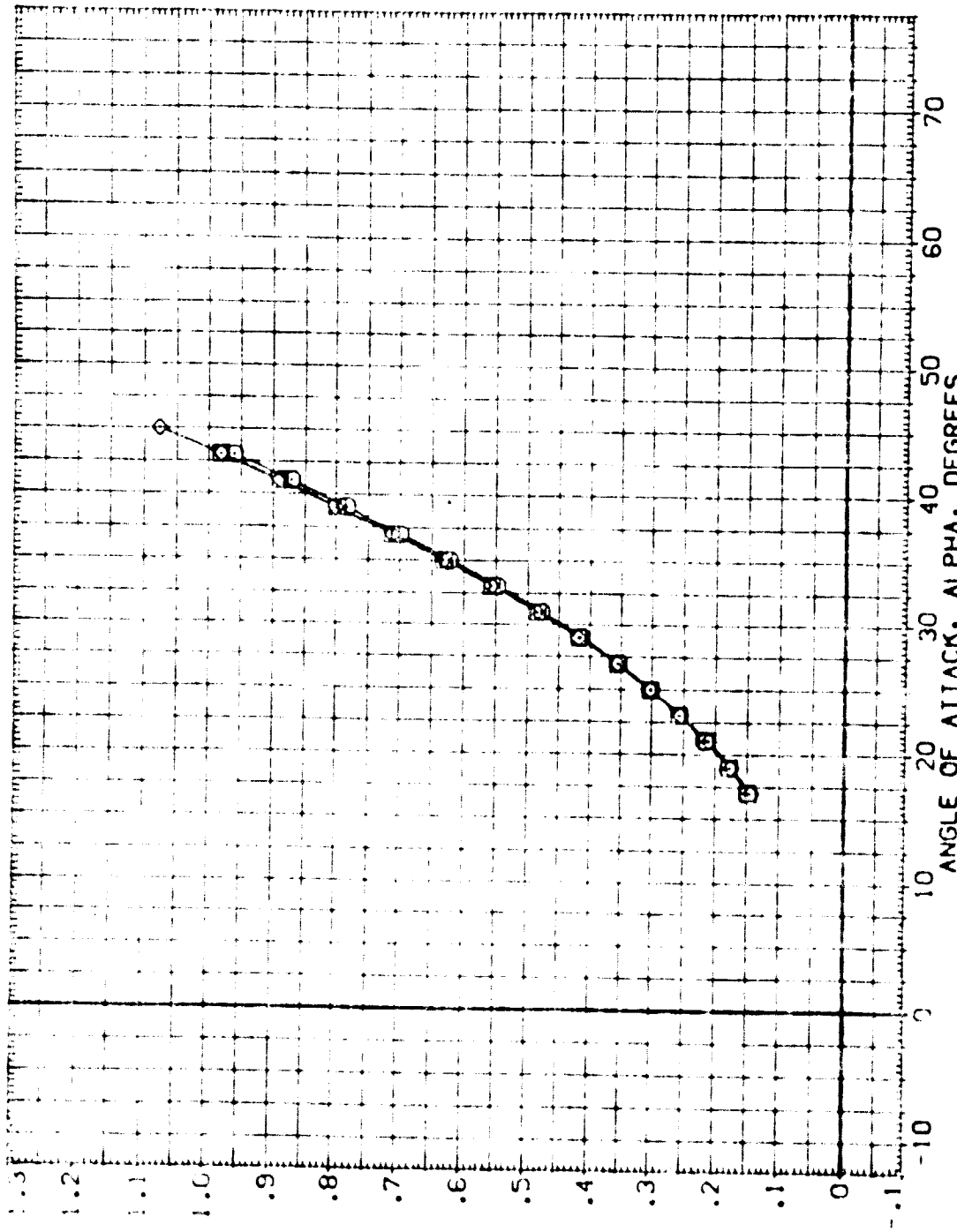


FIG. 21 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)

(A) MACH = 7.90



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		REFERENCE INFORMATION	
(ATM057)	□	DATA 826 C9 E43 F8 H16 N23 RS V8 V11.6	RV-L1	2520.0000	50.0000
(ATM040)	○	DATA 826 C9 E43 F8 H16 N23 RS V8 V11.6	ELV-L0	474.8100	IN.
(ATM001)	◇	DATA 826 C9 E43 F8 H16 N23 RS V8 V11.6	BOFLAP	936.6800	IN.
			RV-L0	1076.6800	IN.
			RV-L1	375.0000	IN.
			RV-L2	375.0000	IN.
			SCALE	.0150	

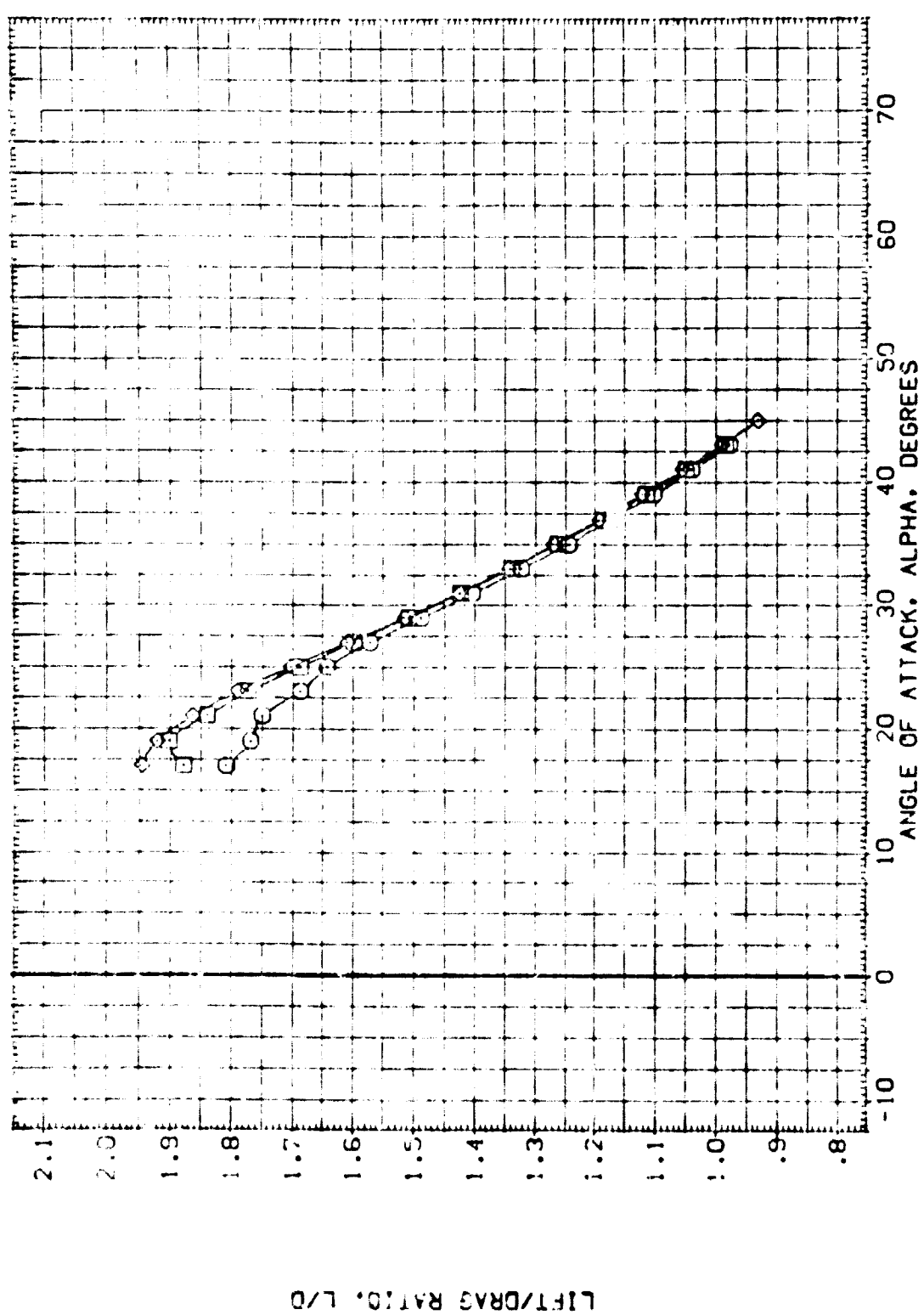


FIG. 21 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 0)  
 (A)MACH = 7.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CIVC58) 0179 336 C3 E43 F8 M15 N08 P5 V8 V116  
 (CIVC049) 0A73 828 C3 E43 F8 M15 N08 P5 V8 V116  
 (CIVC013) 0A73 828 C3 E43 F8 M15 N08 P5 V8 V116

W/L 500 15.300  
 1.000 16.300  
 3.530 16.300

REFERENCE INFORMATION  
 SCALE 20.0000 IN.  
 LINEF 374.5000 IN.  
 XREF 374.5000 IN.  
 XREF 1076.0000 IN.  
 YREF 375.0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

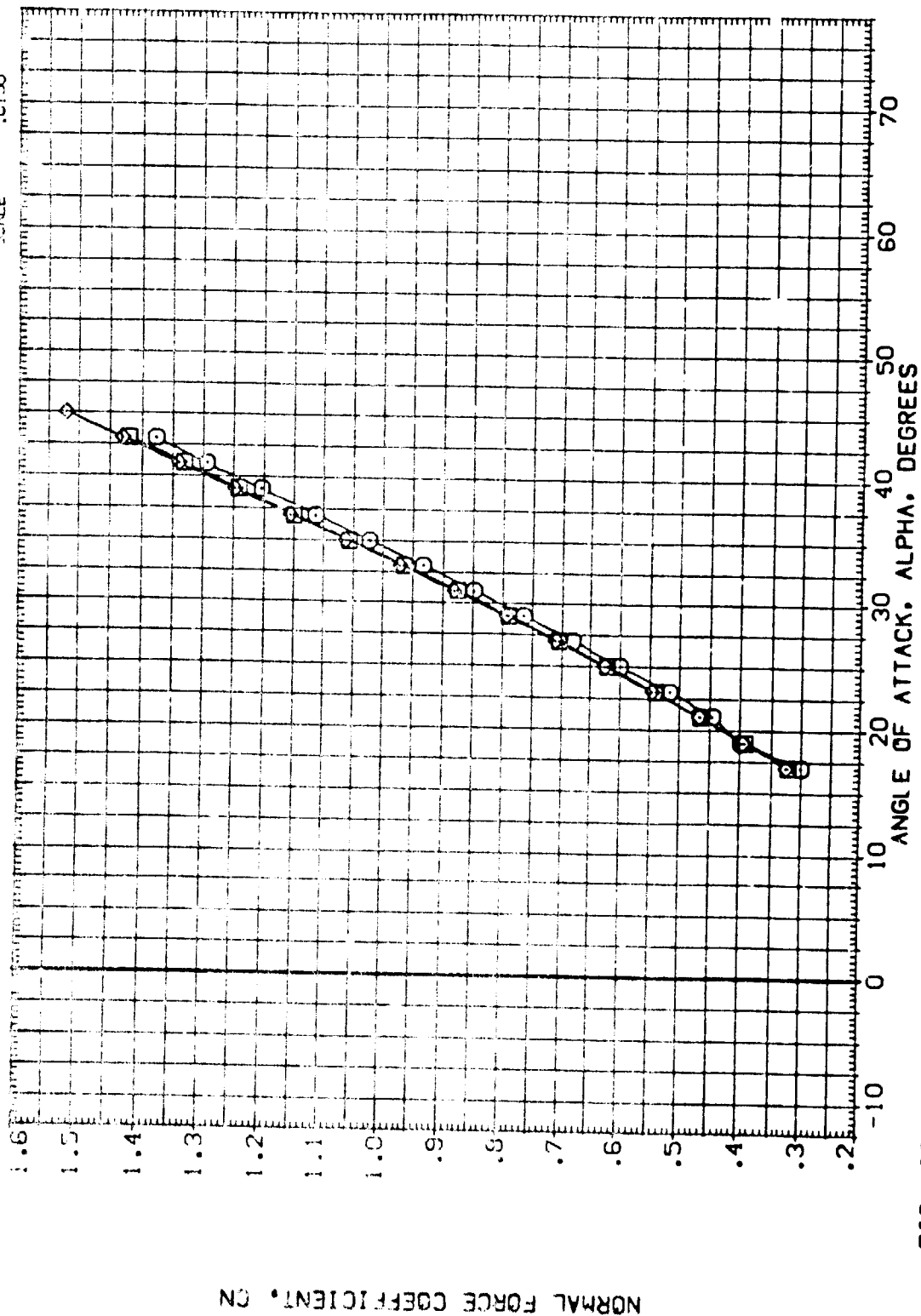


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)  
 (A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV036)	0A79 B26 C9 E43 F8 H16 N26 RS V8 V116	.500	16.300	.000	.000	SREF 2690.0000 SQ.FT.
(CTV049)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	1.060	16.300	.000	.000	LREF 174.8100 IN.
(CTV013)	0A79 B26 C9 E43 F8 H16 N26 RS V8 V116	3.530	16.300	.000	.000	BREF 936.6900 IN.
						XREF 1076.6800 IN.
						YREF .0000 IN.
						ZREF .0150 IN.
						SCALE

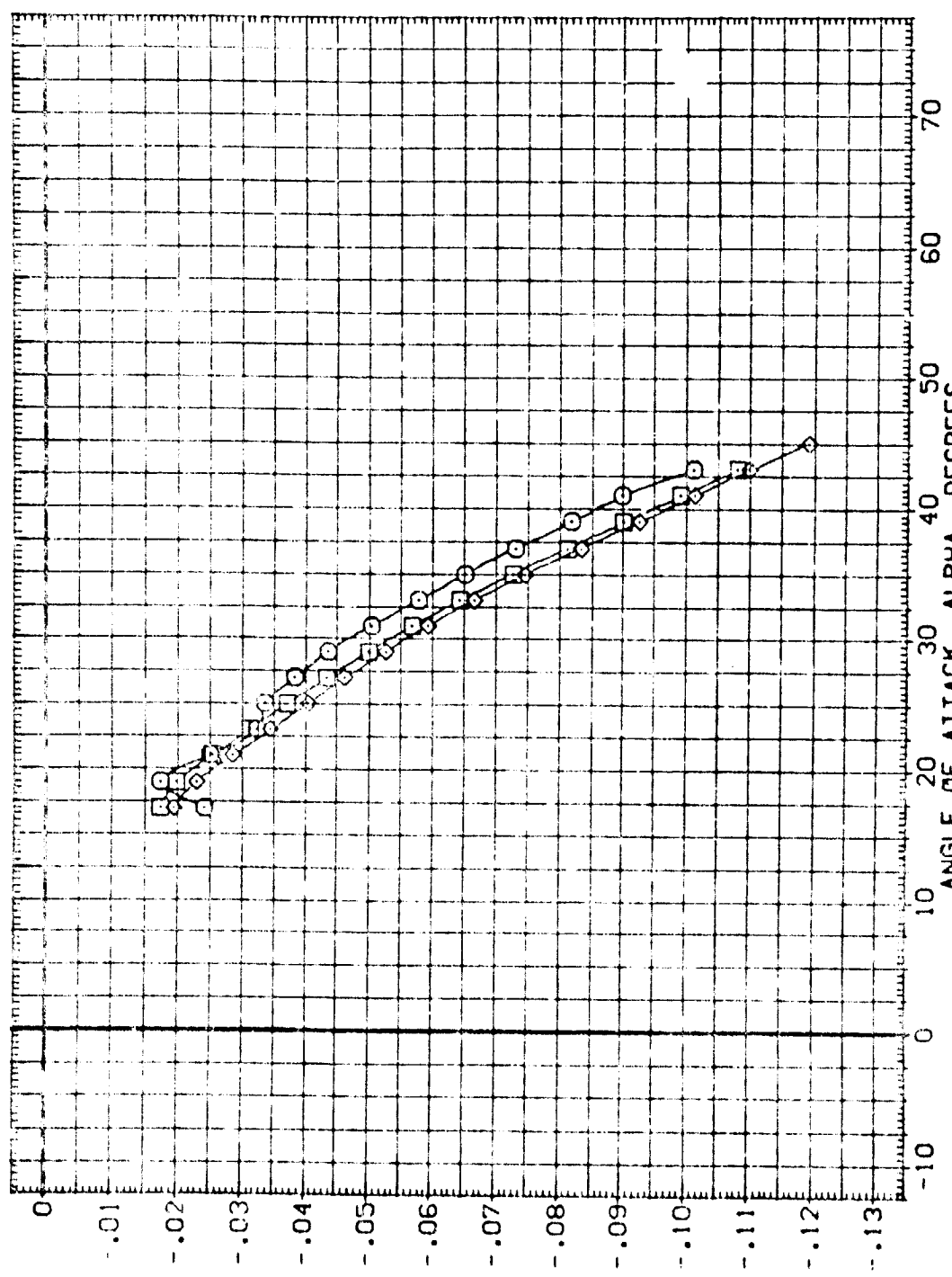


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP= 16.3)

(A)MACH = 7.90

(C) 1980  
 (C) 1981  
 (C) 1982

PITCHING MOMENT COEFFICIENT AT 0.675 BODY LENGTH(AFT C. G.) CLIMAX

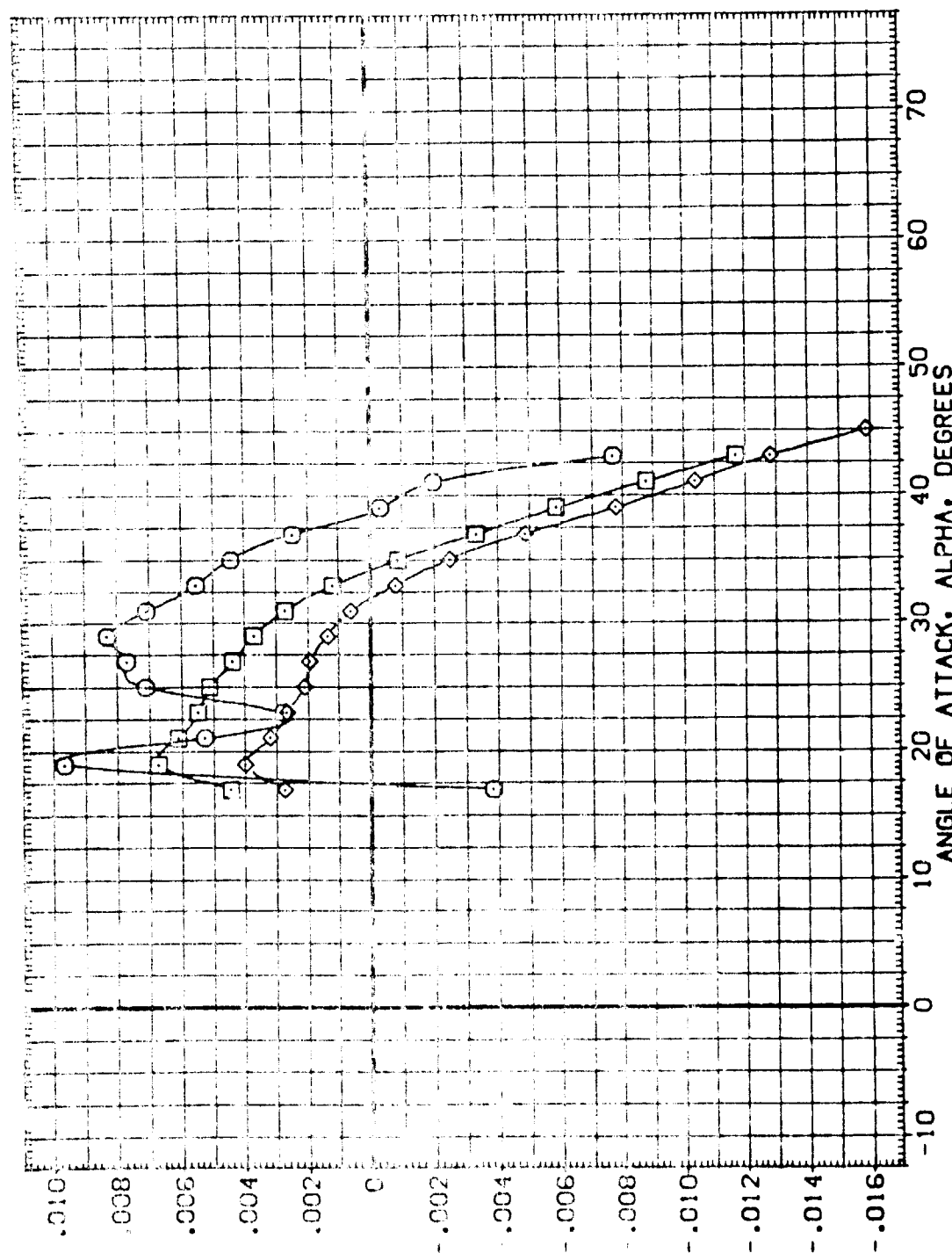


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1V058)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	16.300	.000	.000	SREF 2630.0000 SQ.FT.
(C1V043)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.950	16.300	.000	.000	LREF 474.8100 IN.
(C1V013)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	16.300	.000	.000	BREF 936.6800 IN.
						XREF 1073.6800 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

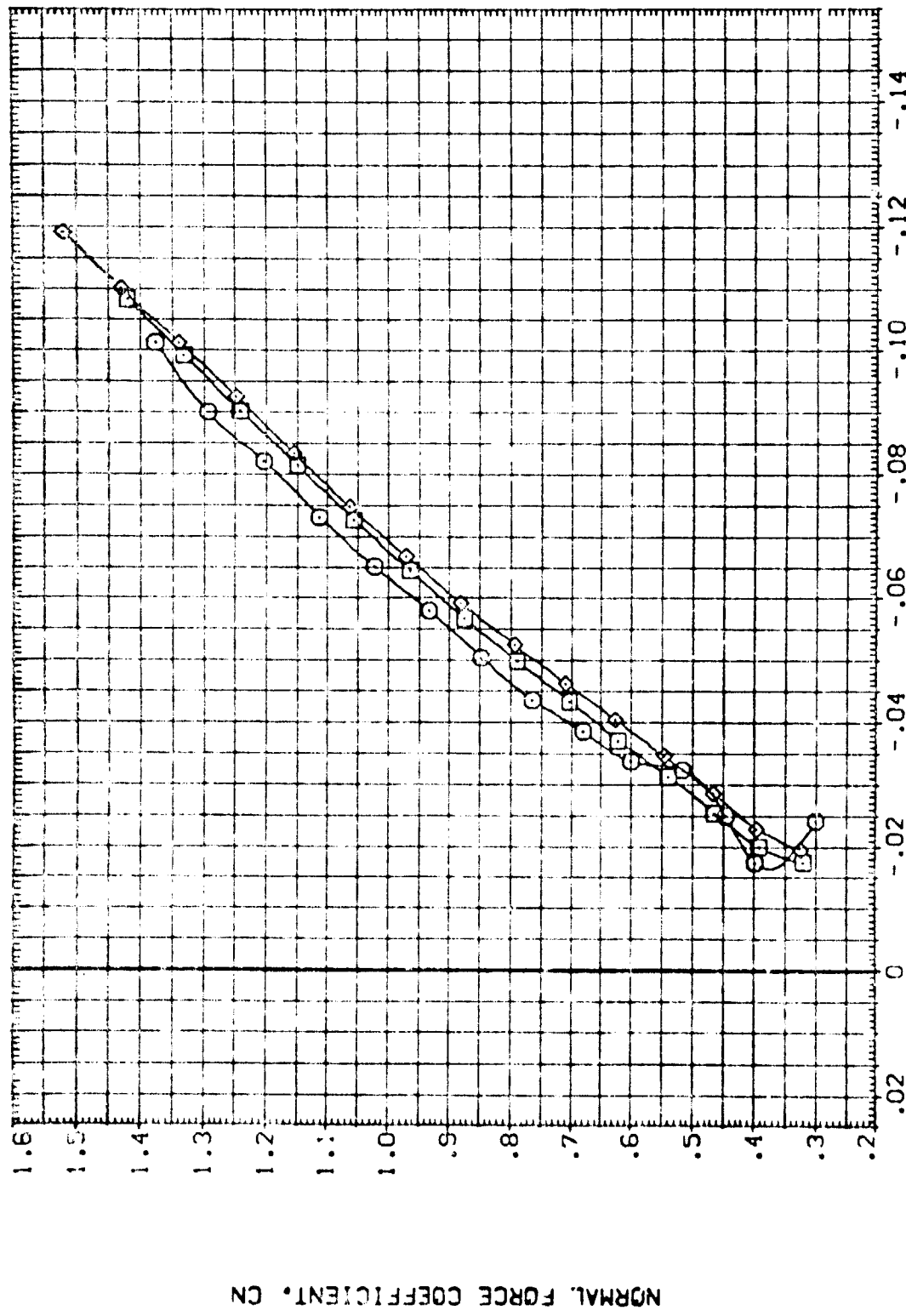


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)



DATA SET SYMBOL: C1008  
 C1009  
 C1010  
 C1011  
 C1012  
 C1013

FLAP: 0.00  
 FLAP: 0.00  
 FLAP: 0.00  
 FLAP: 0.00  
 FLAP: 0.00

REFERENCE INFORMATION:  
 DATE: 2600-0000  
 TIME: 1000  
 LOCATION: 1000  
 NAME: 1000  
 SCALE: 0.0150

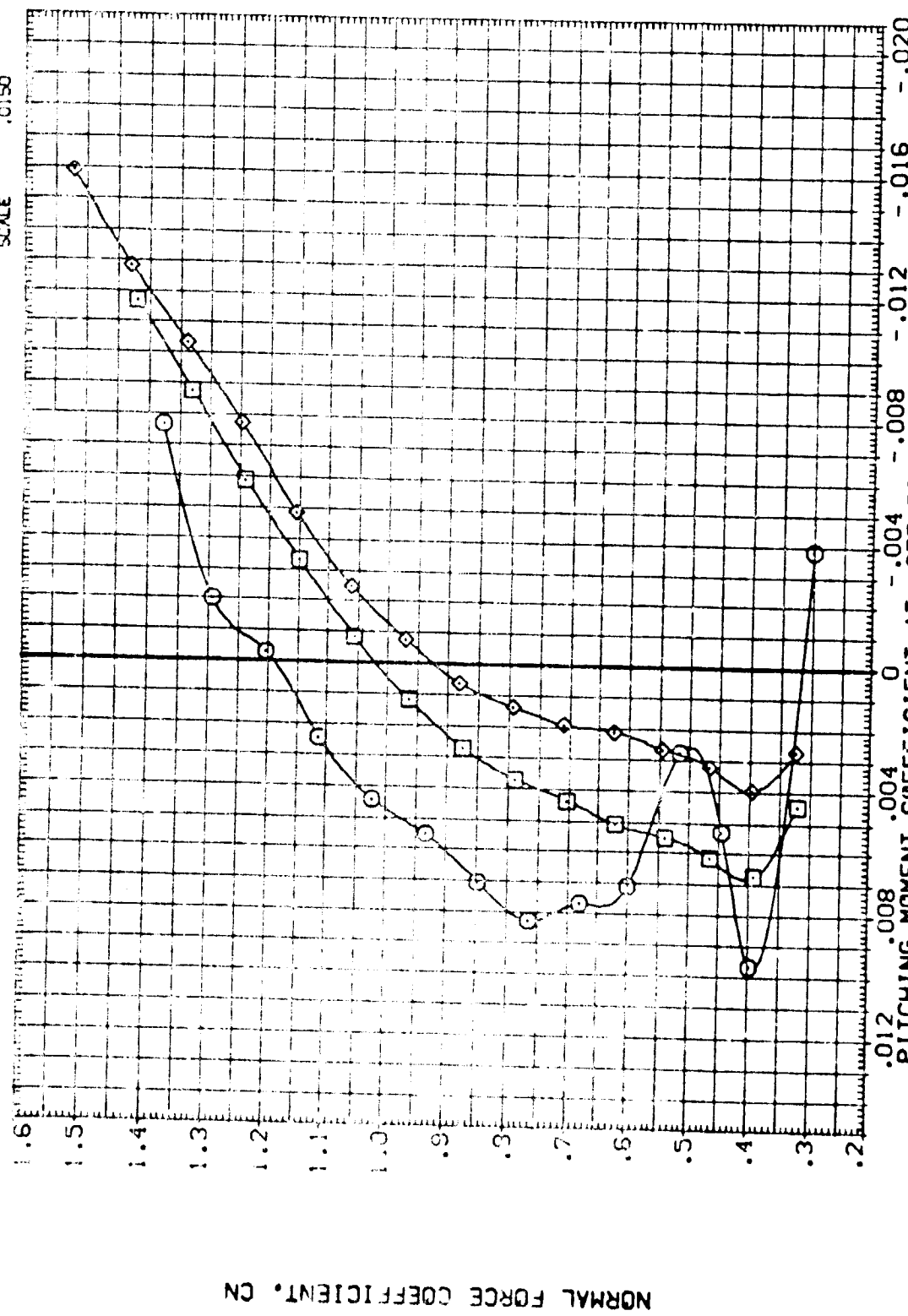


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1)C03)	0A79 B26 C9 E43 F8 M16 N28 RS V8 M116	.500	16.300	.000	.000	SREF 2690.0000 SQ.FT.
(C1)C04)	0A79 B26 C9 E43 F8 M16 N28 RS V8 M116	1.060	16.300	.000	.000	LREF 474.8100 IN.
(C1)C05)	0A79 B26 C9 E43 F8 M16 N28 RS V8 M116	3.530	16.300	.000	.000	DREF 926.6900 IN.
						XMRP 1076.6800 IN.X0
						YMRP .0000 IN.Y0
						ZMRP 375.0000 IN.Z0
						SCALE .0150

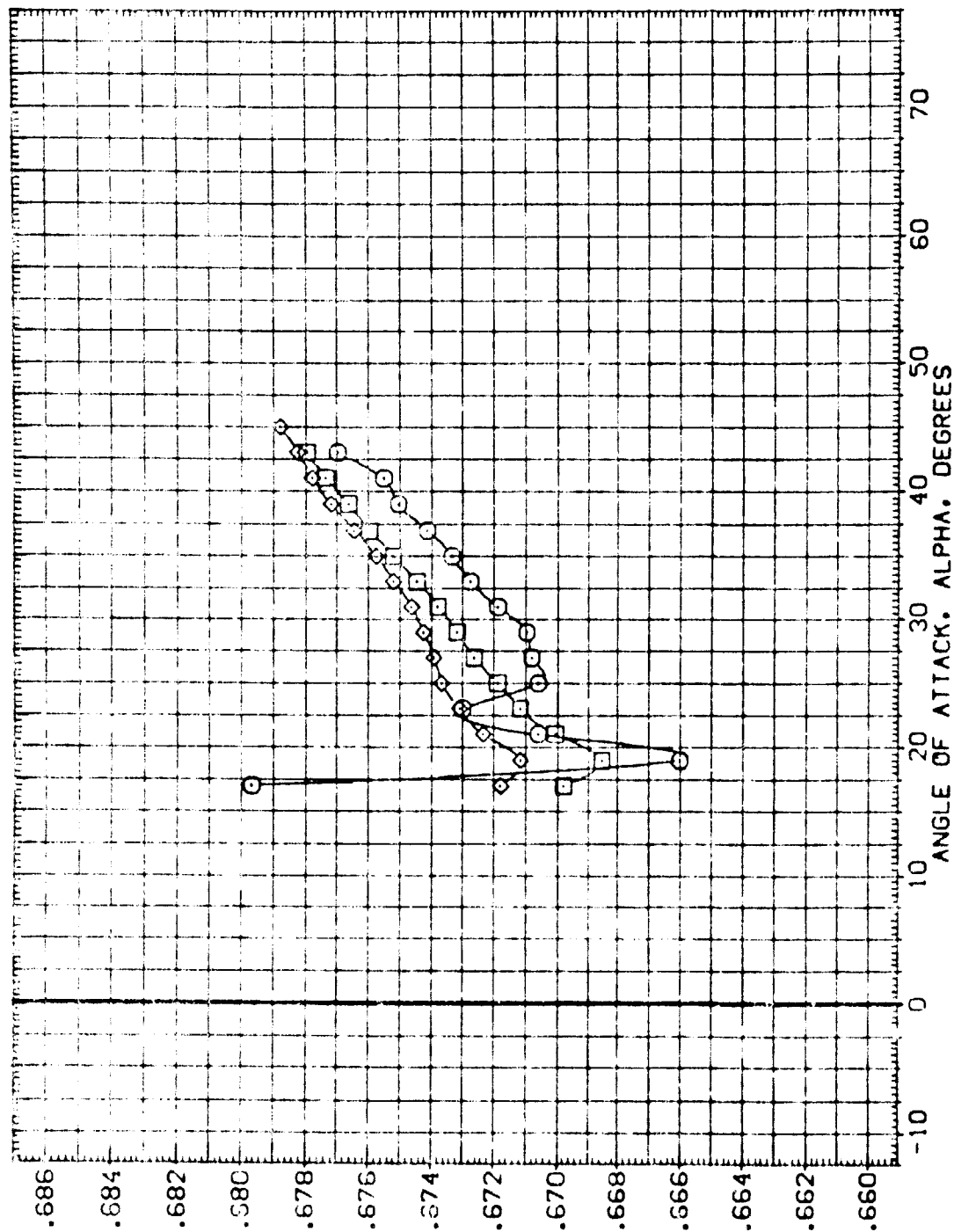


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP= 16.3)

(A)MACH = 7.90



DATA SET 33321  
(01028)  
(01049)  
(01013)

0279 026 09 E43 F8 H16 108 85 V8 V116  
0279 026 09 E43 F8 H16 108 85 V8 V116  
0279 026 09 E43 F8 H16 108 85 V8 V116

REF 2050.0000 50.00  
LREF 474.8100 10.00  
BREF 336.6900 10.00  
AREF 1076.0000 10.00  
THRP 375.0000 10.00  
ZMRP 375.0000 10.00  
SCALE .0150

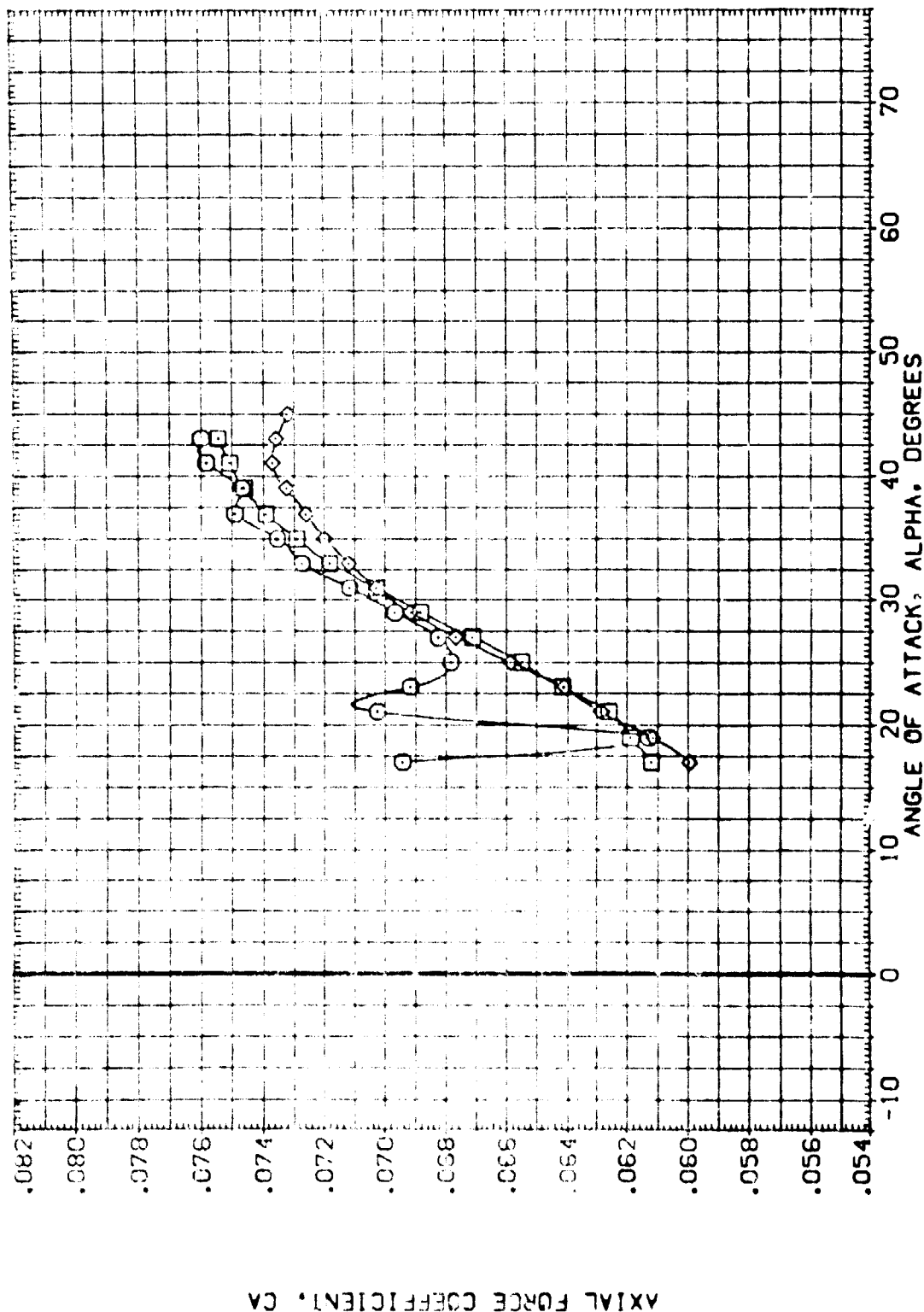


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RAVL	BDFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1V058)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	.500	16.300	.000	.000	SREF 2690.0000 SO.FT.
(C1V049)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	1.860	16.300	.000	.000	LREF 474.8100 IN.
(C1V013)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	3.530	16.300	.000	.000	BREF 936.6800 IN.
						ZMRP 1076.6800 IN.X0
						ZMRP .0000 IN.Y0
						ZMRP 375.0000 IN.Z0
						SCALE .0150

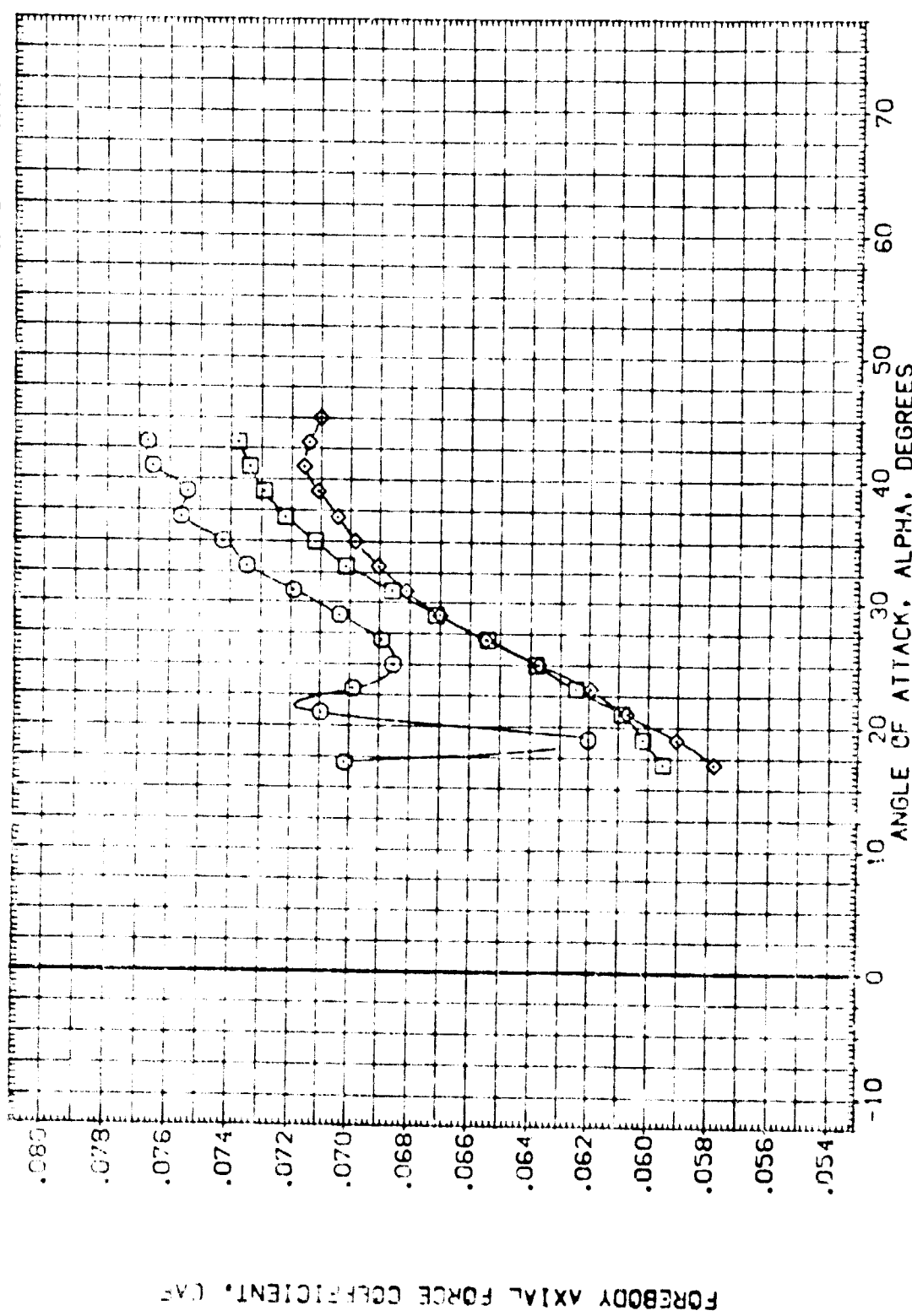


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)  
 (A) MACH = 7.90

BASE AXIAL FORCE COEFFICIENT, CAB

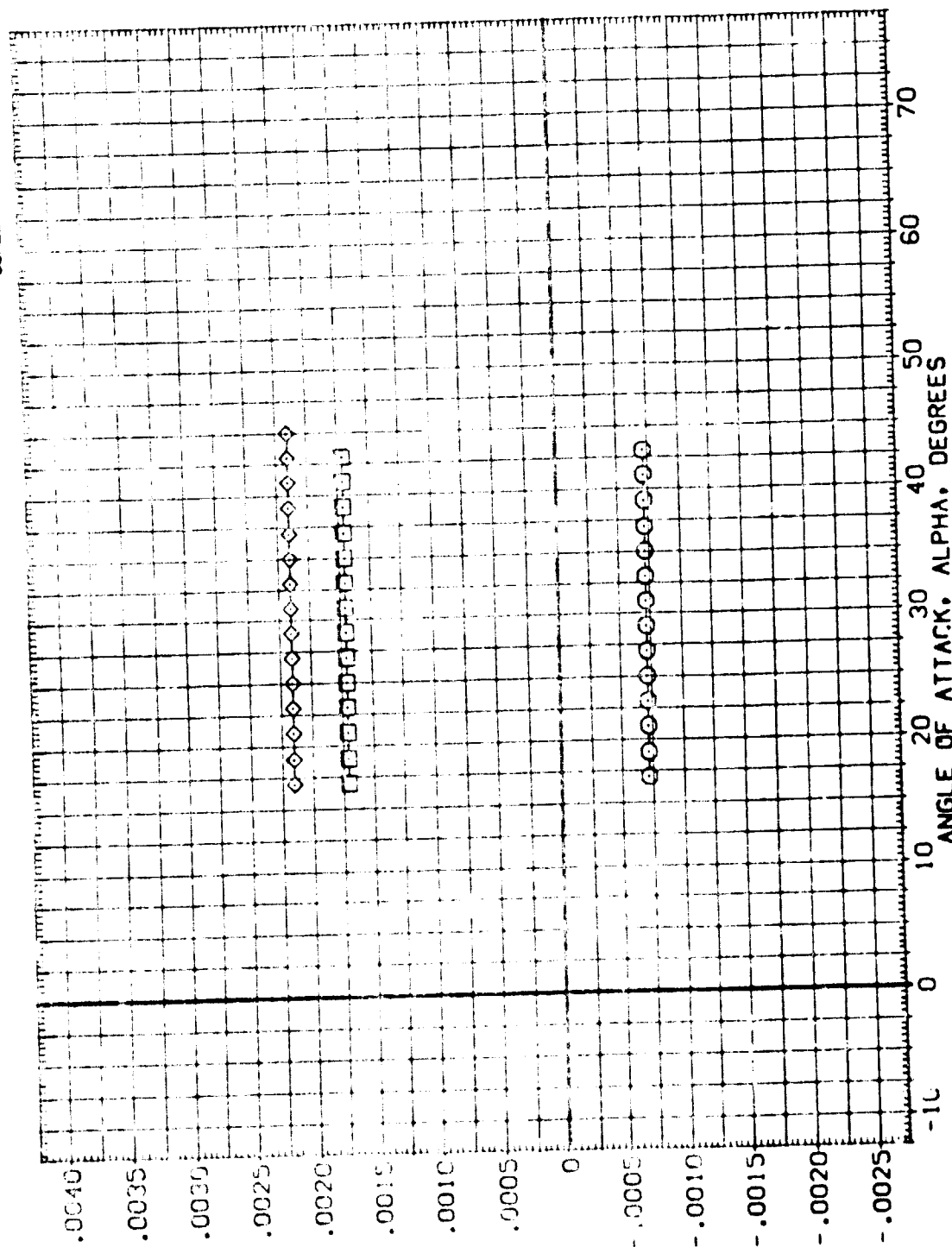


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV058)	DATA 876 C9 E43 F8 M16 N28 RS V8 V116	5.00	16.300	.000	.000	SREF 2690.0000 SQ.FT.
(CTV049)	DATA 876 C9 E43 F8 M16 N28 RS V8 V116	1.860	16.300	.000	.000	LREF 474.8100 IN.
(CTV013)	DATA 876 C9 E43 F8 M16 N28 RS V8 V116	3.530	16.300	.000	.000	BREF 936.6800 IN.
						XREF 1076.6300 IN.
						YREF 375.0000 IN.
						ZREF 375.0150 IN.
						SCALE

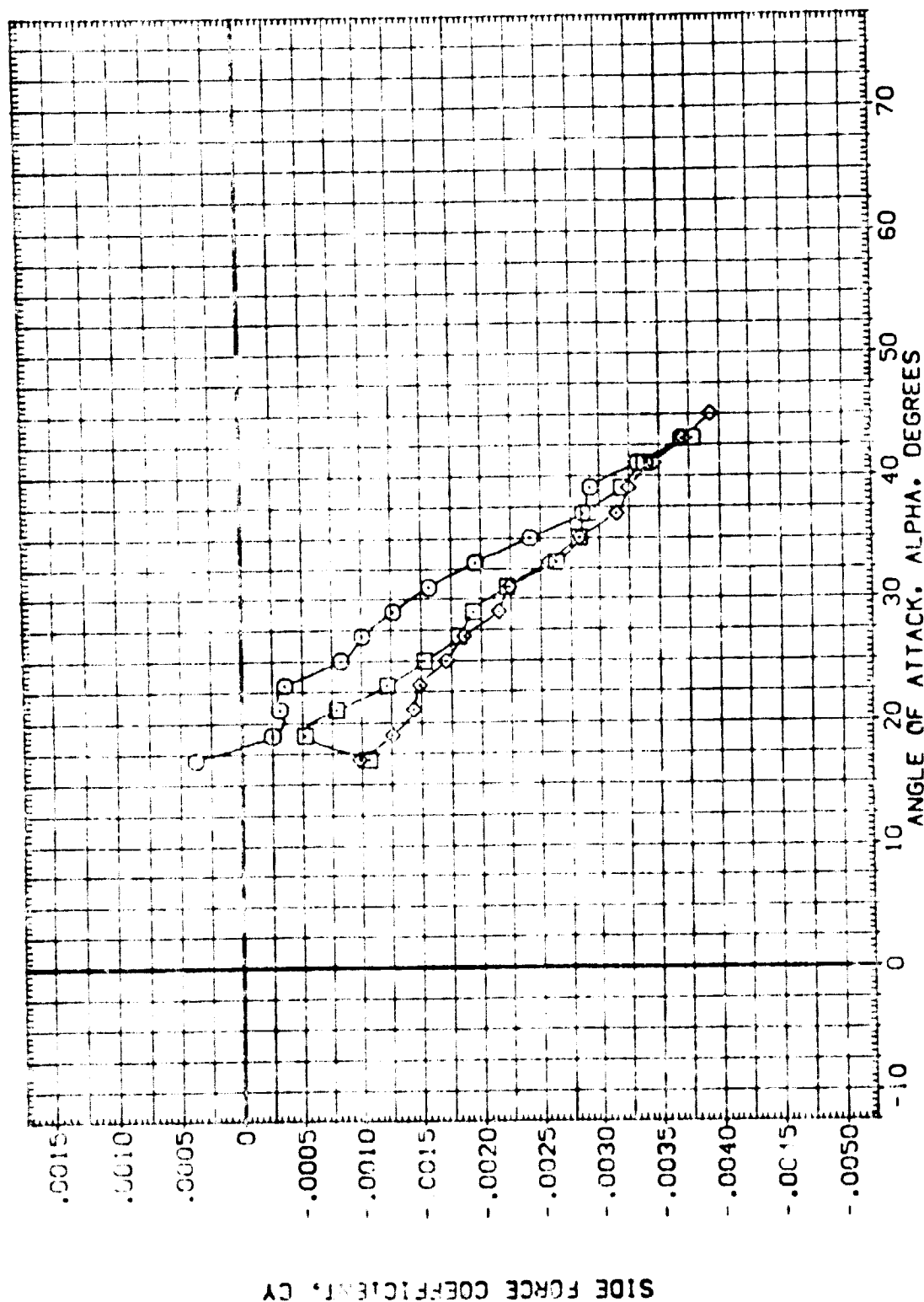


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET 0-50  
 (A) 0-50  
 (A) 0-50  
 (A) 0-50

CONFIGURATION DESCRIPTION  
 0-50 325 0-50 325 0-50 325 0-50 325  
 0-50 325 0-50 325 0-50 325 0-50 325  
 0-50 325 0-50 325 0-50 325 0-50 325

REF. INFO  
 0-50 325 0-50 325 0-50 325 0-50 325  
 0-50 325 0-50 325 0-50 325 0-50 325  
 0-50 325 0-50 325 0-50 325 0-50 325

REFERENCE INFORMATION  
 0-50 325 0-50 325 0-50 325 0-50 325  
 0-50 325 0-50 325 0-50 325 0-50 325  
 0-50 325 0-50 325 0-50 325 0-50 325

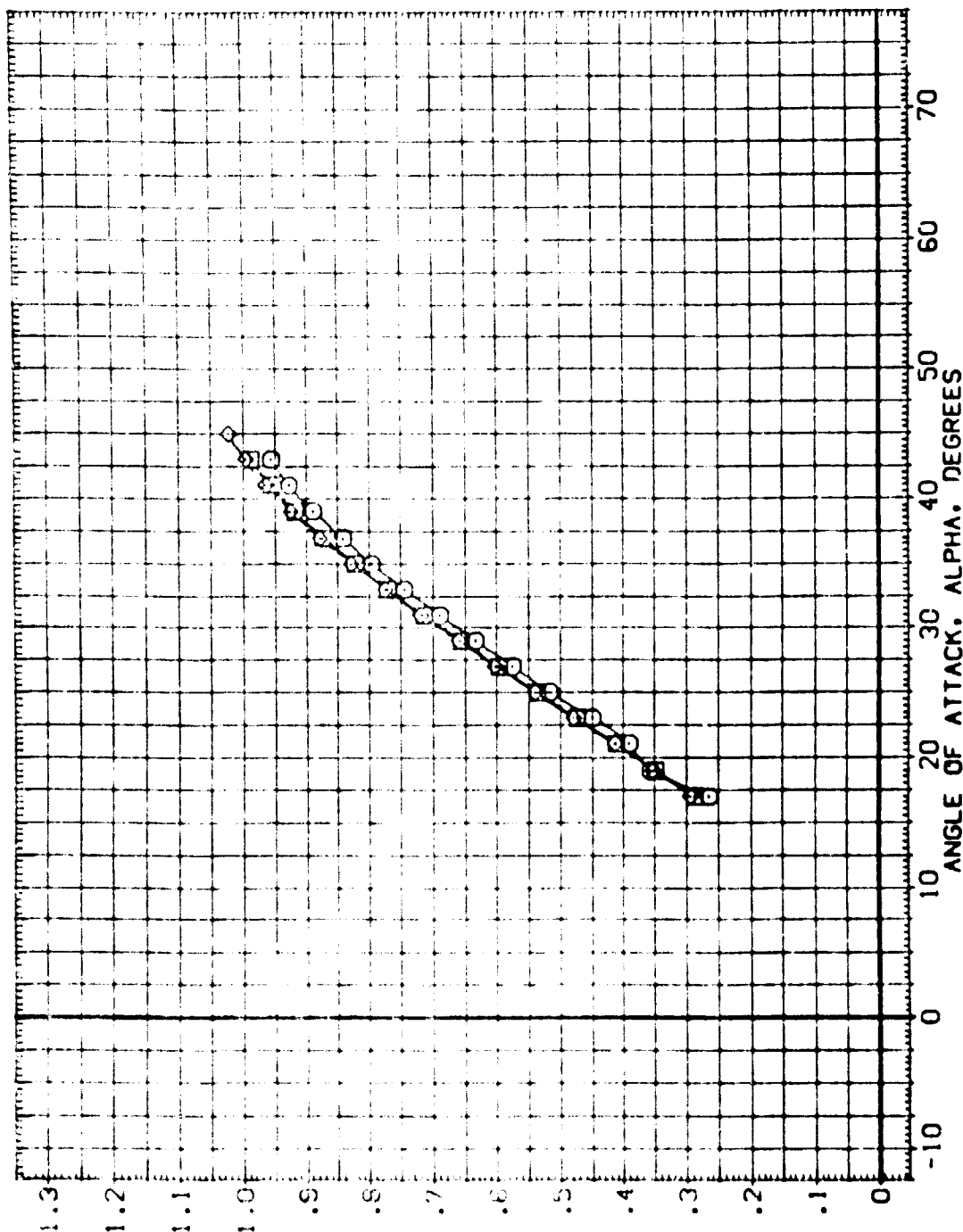


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)

(A)MACH = 7.90





DATE	DESCRIPTION	AMOUNT	BALANCE
10/1/80	OPENING BALANCE	100.00	100.00
10/15/80	PAYROLL	50.00	50.00
10/20/80	RENT	25.00	25.00
10/25/80	SALES	75.00	100.00
10/30/80	PAYROLL	50.00	50.00
11/5/80	RENT	25.00	25.00
11/10/80	SALES	75.00	100.00
11/15/80	PAYROLL	50.00	50.00
11/20/80	RENT	25.00	25.00
11/25/80	SALES	75.00	100.00
11/30/80	PAYROLL	50.00	50.00
12/5/80	RENT	25.00	25.00
12/10/80	SALES	75.00	100.00
12/15/80	PAYROLL	50.00	50.00
12/20/80	RENT	25.00	25.00
12/25/80	SALES	75.00	100.00
12/30/80	PAYROLL	50.00	50.00
1/5/81	RENT	25.00	25.00
1/10/81	SALES	75.00	100.00
1/15/81	PAYROLL	50.00	50.00
1/20/81	RENT	25.00	25.00
1/25/81	SALES	75.00	100.00
1/30/81	PAYROLL	50.00	50.00
2/5/81	RENT	25.00	25.00
2/10/81	SALES	75.00	100.00
2/15/81	PAYROLL	50.00	50.00
2/20/81	RENT	25.00	25.00
2/25/81	SALES	75.00	100.00
2/30/81	PAYROLL	50.00	50.00
3/5/81	RENT	25.00	25.00
3/10/81	SALES	75.00	100.00
3/15/81	PAYROLL	50.00	50.00
3/20/81	RENT	25.00	25.00
3/25/81	SALES	75.00	100.00
3/30/81	PAYROLL	50.00	50.00
4/5/81	RENT	25.00	25.00
4/10/81	SALES	75.00	100.00
4/15/81	PAYROLL	50.00	50.00
4/20/81	RENT	25.00	25.00
4/25/81	SALES	75.00	100.00
4/30/81	PAYROLL	50.00	50.00
5/5/81	RENT	25.00	25.00
5/10/81	SALES	75.00	100.00
5/15/81	PAYROLL	50.00	50.00
5/20/81	RENT	25.00	25.00
5/25/81	SALES	75.00	100.00
5/30/81	PAYROLL	50.00	50.00
6/5/81	RENT	25.00	25.00
6/10/81	SALES	75.00	100.00
6/15/81	PAYROLL	50.00	50.00
6/20/81	RENT	25.00	25.00
6/25/81	SALES	75.00	100.00
6/30/81	PAYROLL	50.00	50.00
7/5/81	RENT	25.00	25.00
7/10/81	SALES	75.00	100.00
7/15/81	PAYROLL	50.00	50.00
7/20/81	RENT	25.00	25.00
7/25/81	SALES	75.00	100.00
7/30/81	PAYROLL	50.00	50.00
8/5/81	RENT	25.00	25.00
8/10/81	SALES	75.00	100.00
8/15/81	PAYROLL	50.00	50.00
8/20/81	RENT	25.00	25.00
8/25/81	SALES	75.00	100.00
8/30/81	PAYROLL	50.00	50.00
9/5/81	RENT	25.00	25.00
9/10/81	SALES	75.00	100.00
9/15/81	PAYROLL	50.00	50.00
9/20/81	RENT	25.00	25.00
9/25/81	SALES	75.00	100.00
9/30/81	PAYROLL	50.00	50.00
10/5/81	RENT	25.00	25.00
10/10/81	SALES	75.00	100.00
10/15/81	PAYROLL	50.00	50.00
10/20/81	RENT	25.00	25.00
10/25/81	SALES	75.00	100.00
10/30/81	PAYROLL	50.00	50.00
11/5/81	RENT	25.00	25.00
11/10/81	SALES	75.00	100.00
11/15/81	PAYROLL	50.00	50.00

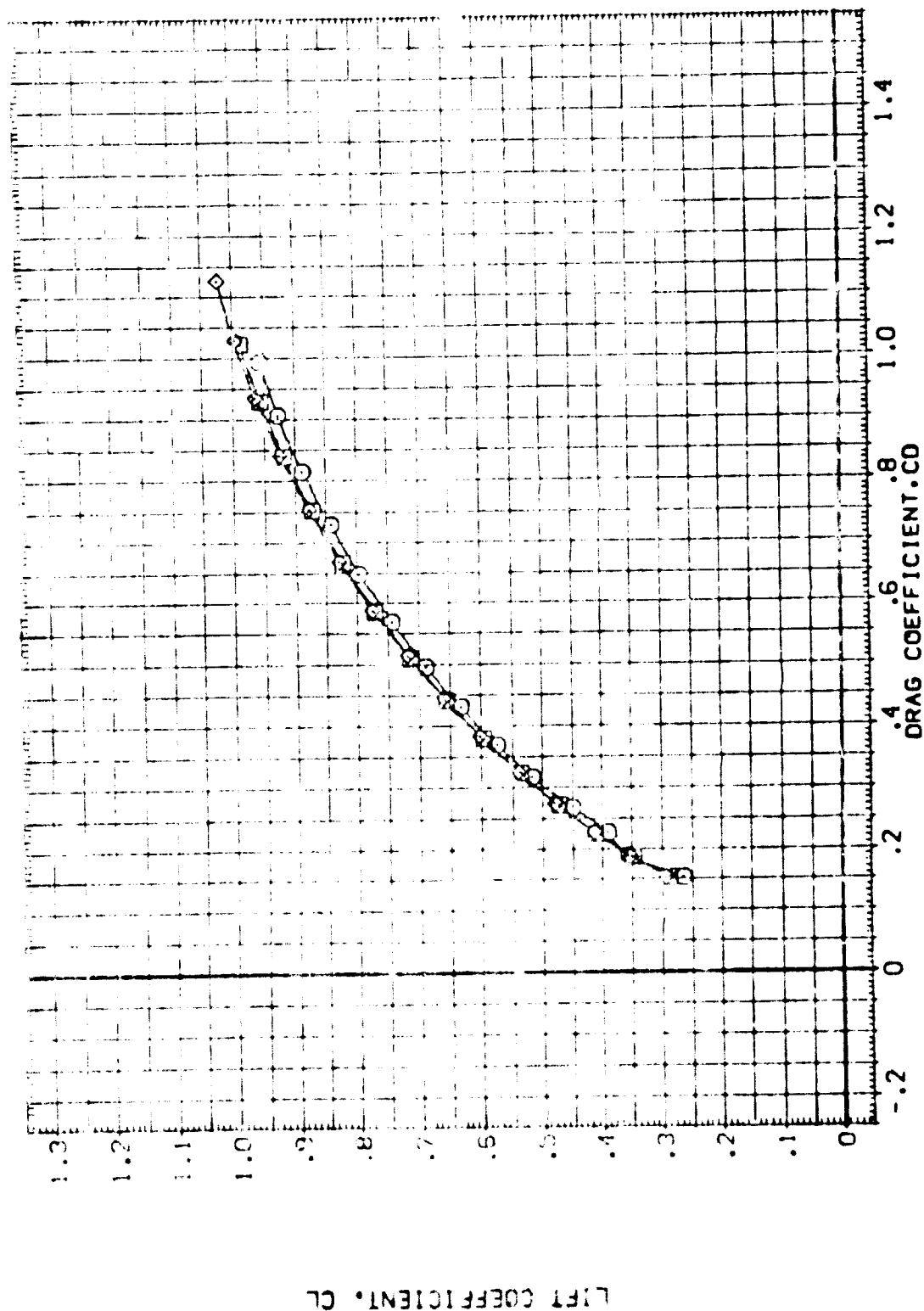


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	WAL	BD FLAP	ELV-LB	ELV-LI	REFERENCE INFORMATION
[A1058]	DATA 826 C9 E43 F8 M16 N28 RS V8 W116	.500	16.300	.000	.000	SREF 2650.0000 SQ.FT.
[A1049]	DATA 826 C9 E43 F8 M16 N28 RS V8 W116	1.660	16.300	.000	.000	LOEF 474.8100 IN.
[A1013]	DATA 826 C9 E43 F8 M16 N28 RS V8 W116	3.530	16.300	.000	.000	BOEF 936.6800 IN.
						ATFP 1076.0000 IN.
						THFP .0000 IN.
						2148P .0000 IN.
						SCALE .0150

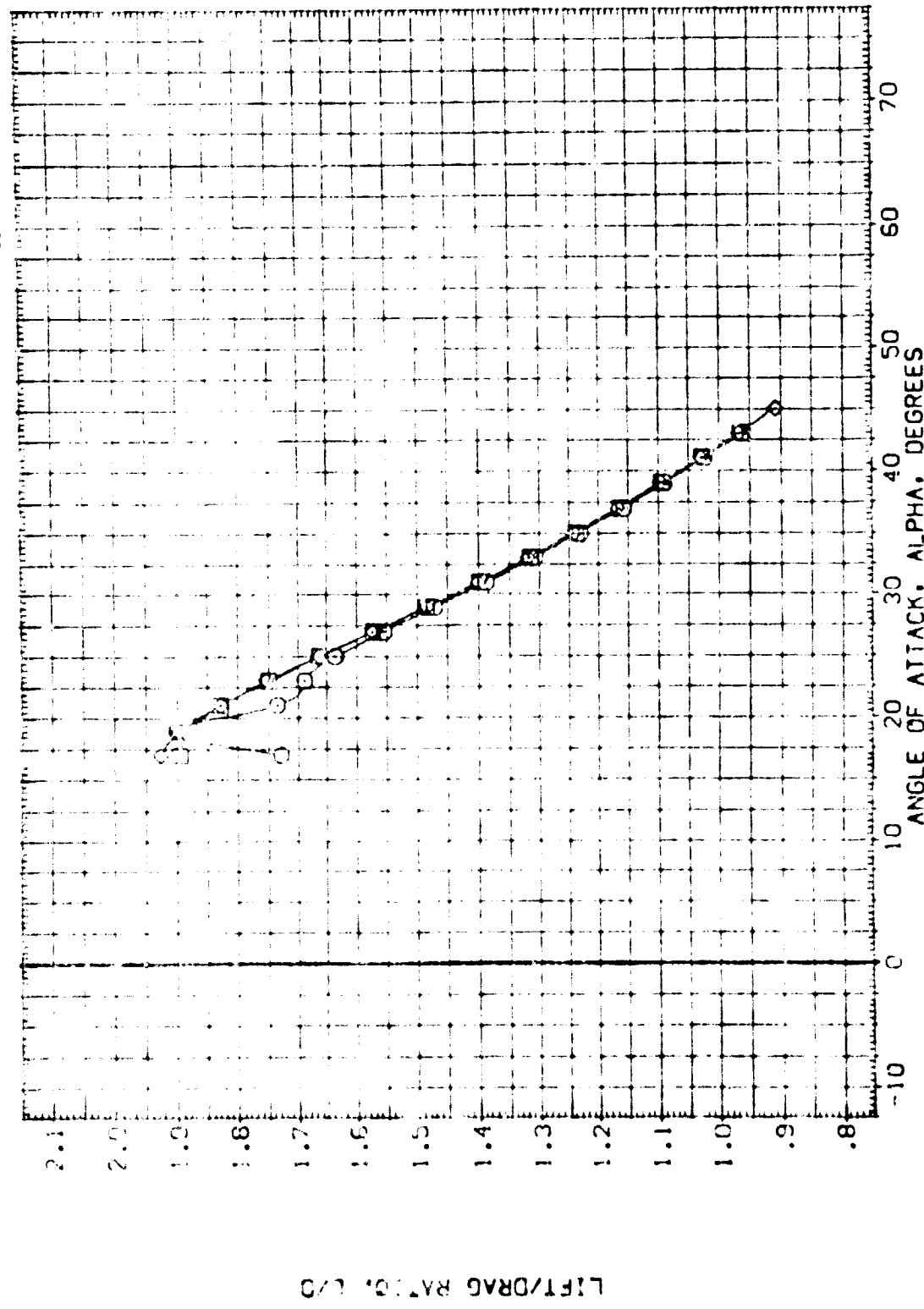


FIG. 22 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP= 16.3)  
 (A)MACH = 7.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CTV059) 0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (CTV048) 0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (CTV012) 0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116

RVL ELV-L0 ELV-L1 REFERENCE INFORMATION  
 .500 .000 .000 SREF 2690.0000 50.FT.  
 1.860 .000 .000 LREF 474.8100 IN.  
 3.530 -11.700 .000 BREF 936.6900 IN.  
 XREF 1076.8900 IN.  
 YREF 375.0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

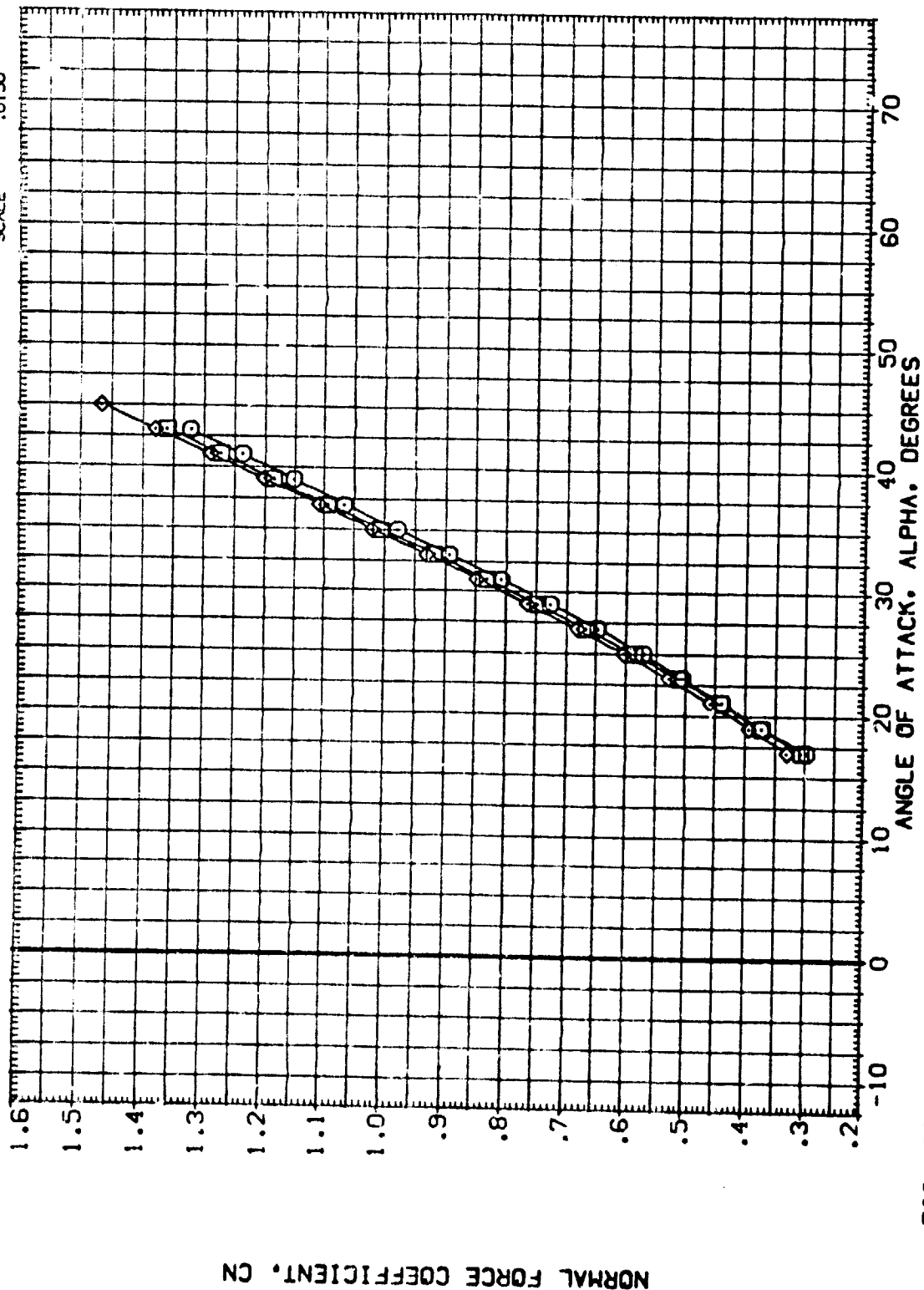


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)  
 (A)MACH = 7.90

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C. G.) CLMPD

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CIV053)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	-11.700	.000	.000	SREF 2690.0000 50.FT.
(CIV048)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	-11.700	.000	.000	LREF 474.8100 IN.
(CIV012)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	-11.700	.000	.000	BREF 936.8800 IN.X0
						YMRP 1076.8800 IN.Y0
						ZMRP 375.0000 IN.Z0
						SCALE .0150

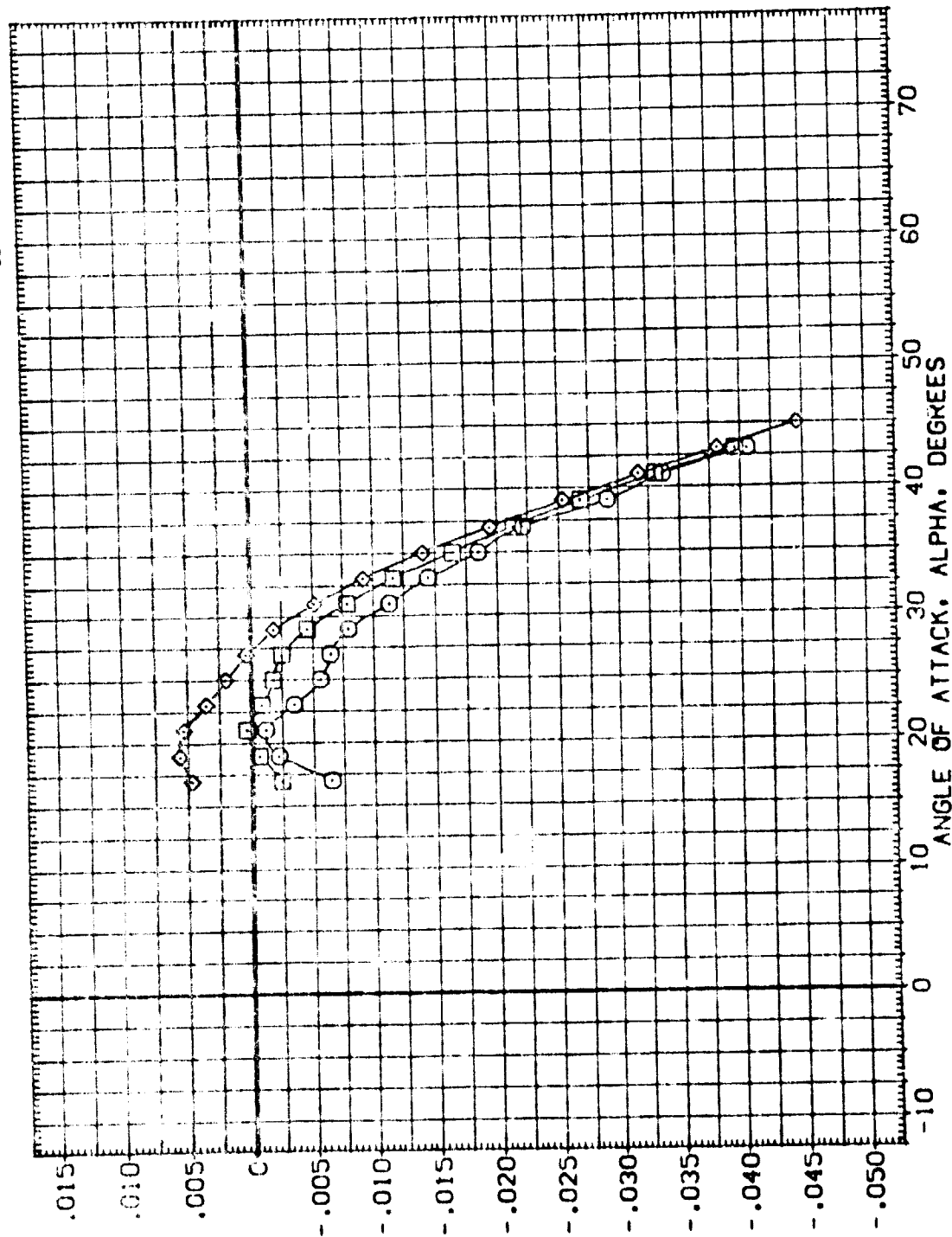


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(CIV059)	Q479 B26 C9 E43 F8 H16 N28 RS	V8 V116
(CIV048)	Q479 B26 C9 E43 F8 H16 N28 RS	V8 V116
(CIV012)	Q479 B26 C9 E43 F8 H16 N28 RS	V8 V116

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH (C. G.) CLMPT

RVL	BOFLAP	ELV-LC	ELV-LI	REFERENCE INFORMATION
.500	-11.700	.000	.000	SREF 2690.0000 SQ.FT.
1.850	-11.700	.000	.000	LREF 474.8100 IN.
3.530	-11.700	.000	.000	LREF 936.0000 IN.
				XREF 1076.6800 IN. X8
				YREF .0000 IN. Y8
				ZREF .0000 IN. Z8
				SCALE .0150

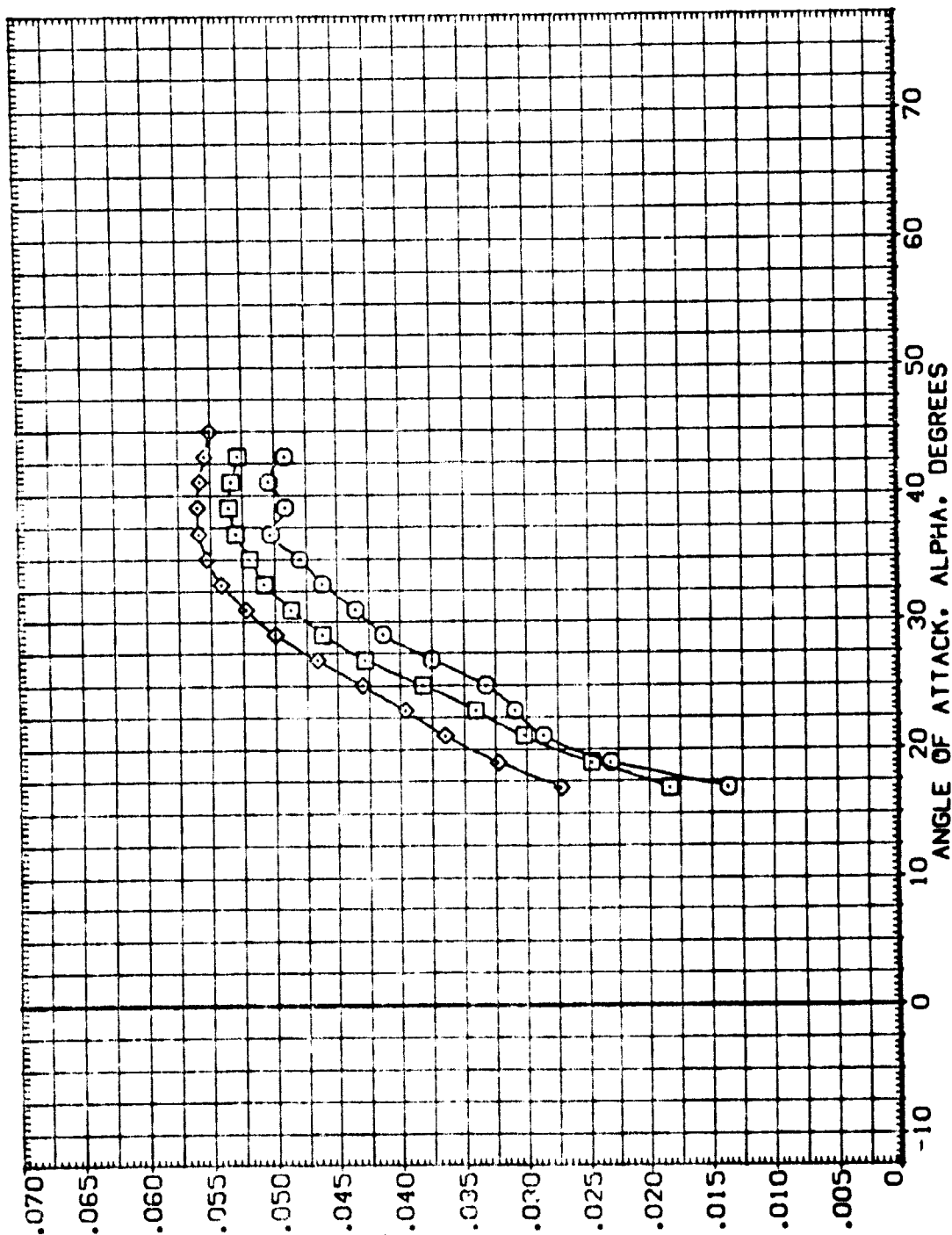
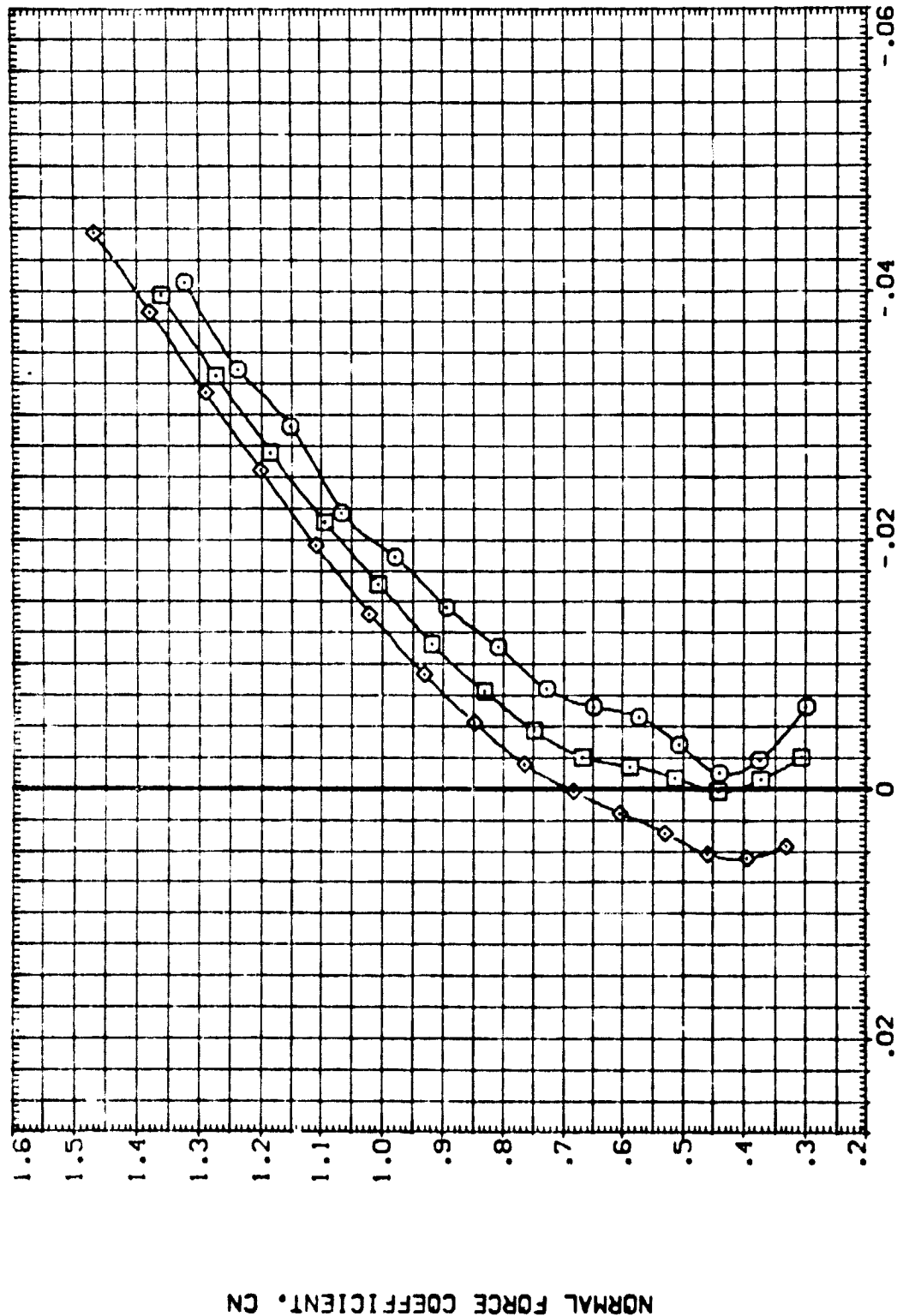


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV059)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	-11.700	.000	.000	SREF 2690.0000 SQ.FT.
(CTV048)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	-11.700	.000	.000	LREF 474.8100 IN.
(CTV012)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	-11.700	.000	.000	BREF 936.6800 IN. X0
						XREF 1076.6800 IN. Y0
						YREF .0000 IN. Z0
						ZREF 375.0000 IN. Z0
						SCALE .0150



PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH (FORWARD C. G.) CLMFWD

FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90

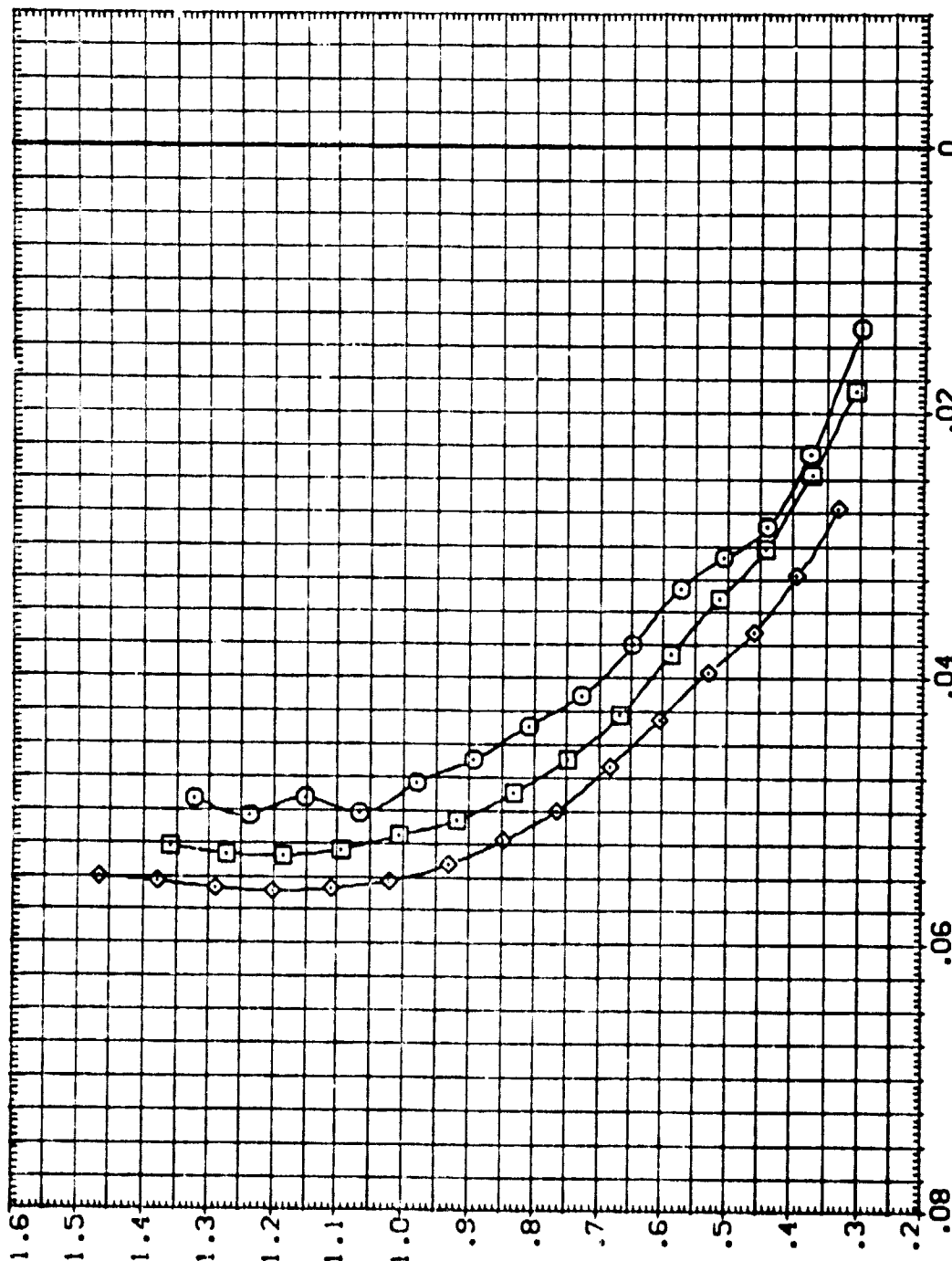
DATA SET SYMBOL: (CTV059) (CTV048) (CTV012)

CONFIGURATION DESCRIPTION: DA79 B26 C9 E43 F8 M16 N28 RS V8 V116  
DA79 B26 C9 E43 F8 M16 N28 RS V8 V116

RM/L: 500 -11.700  
1.860 -11.700  
3.530 -11.700

BOFLAP: ELV-L0 .000  
ELV-L1 .000  
ELV-L2 .000

REFERENCE INFORMATION: SREF 2690.0000 SO.FT.  
LREF 474.8100 IN.  
BREF 906.6800 IN.  
XTRP 1076.6900 IN.X0  
YTRP .0000 IN.Y0  
ZTRP 375.0000 IN.Z0  
SCALE .0150



PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH(AFT C. G.) CLMAFT  
FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    REFERENCE INFORMATION

(C1V059)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	SREF 2690.0000 SQ.FT.
(C1V048)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	LREF 474.8100 IN.
(C1V012)	0A79 B26 C9 E43 F8 M16 N28 RS V8 V116	EREF 936.6800 IN.
		XREF 1076.6800 IN.
		YREF 0.0000 IN.
		ZREF 375.0000 IN.
		SCALE .0150

RM/L    BOFLAP    ELV-L0    ELV-L1

.500	-11.700	.000	.000
1.860	-11.700	.000	.000
3.530	-11.700	.000	.000

CENTER OF PRESSURE LOCATION AS A FRACTION OF BODY LENGTH, XCP/L

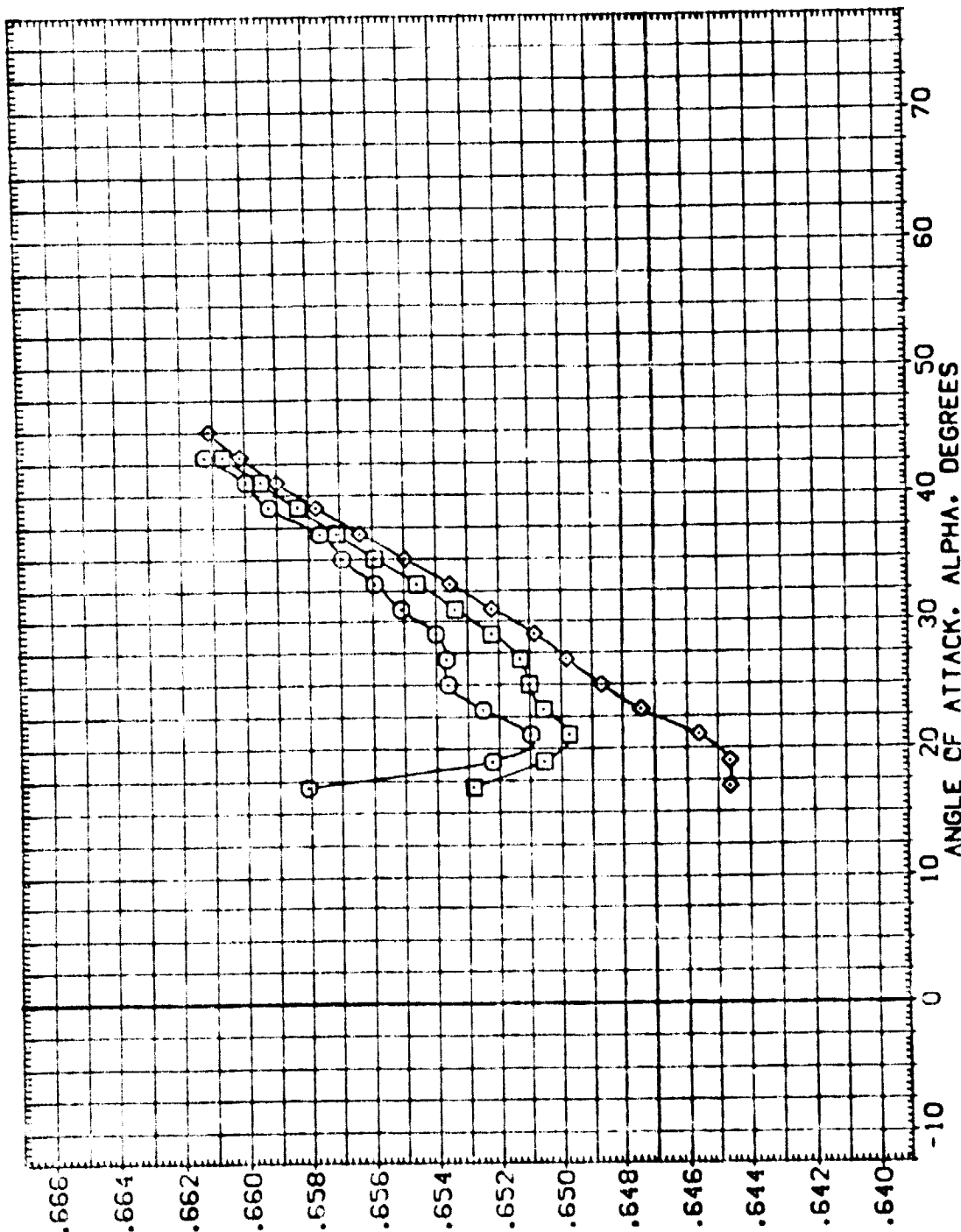


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90



DATA SET SYMBOL:     

CONFIGURATION DESCRIPTION:  
 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116  
 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116  
 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

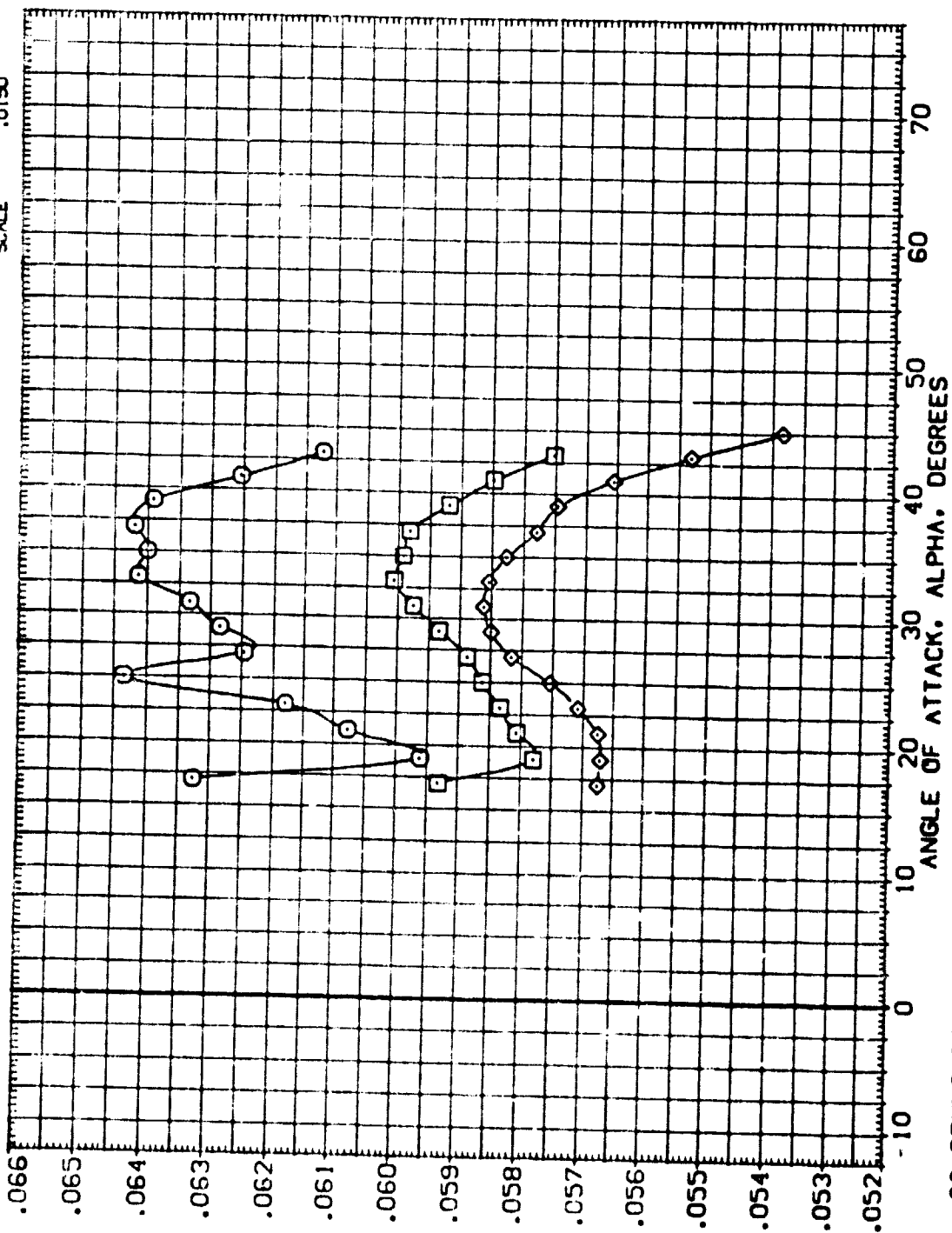
RM/L: .500  
 1.860  
 3.530

BOFL/P: -11.700  
 -11.700  
 -11.700

ELV-L0: .000  
 .000  
 .000

ELV-L1: .000  
 .000  
 .000

REFERENCE INFORMATION:  
 SREF: 2690.0000 50. FT.  
 LREF: 474.8100 IN.  
 GREF: 836.8500 IN.  
 XMRP: 1076.5600 IN.  
 YMRP: .0000 IN.  
 ZMRP: 375.0000 IN.  
 SCALE: .0150



AXIAL FORCE COEFFICIENT, CA

FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP = -11.7)  
 (A) MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BD LAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV059)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	-11.700	.000	.000	SREF 2650.0000 SQ.FT.
(CTV048)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	-11.700	.000	.000	LREF 474.8100 IN.
(CTV012)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	-11.700	.000	.000	BREF 936.6800 IN.
						XTRP 1076.6800 IN.X0
						YTRP .0000 IN.Y0
						ZTRP 375.0000 IN.Z0
						SCALE .0150

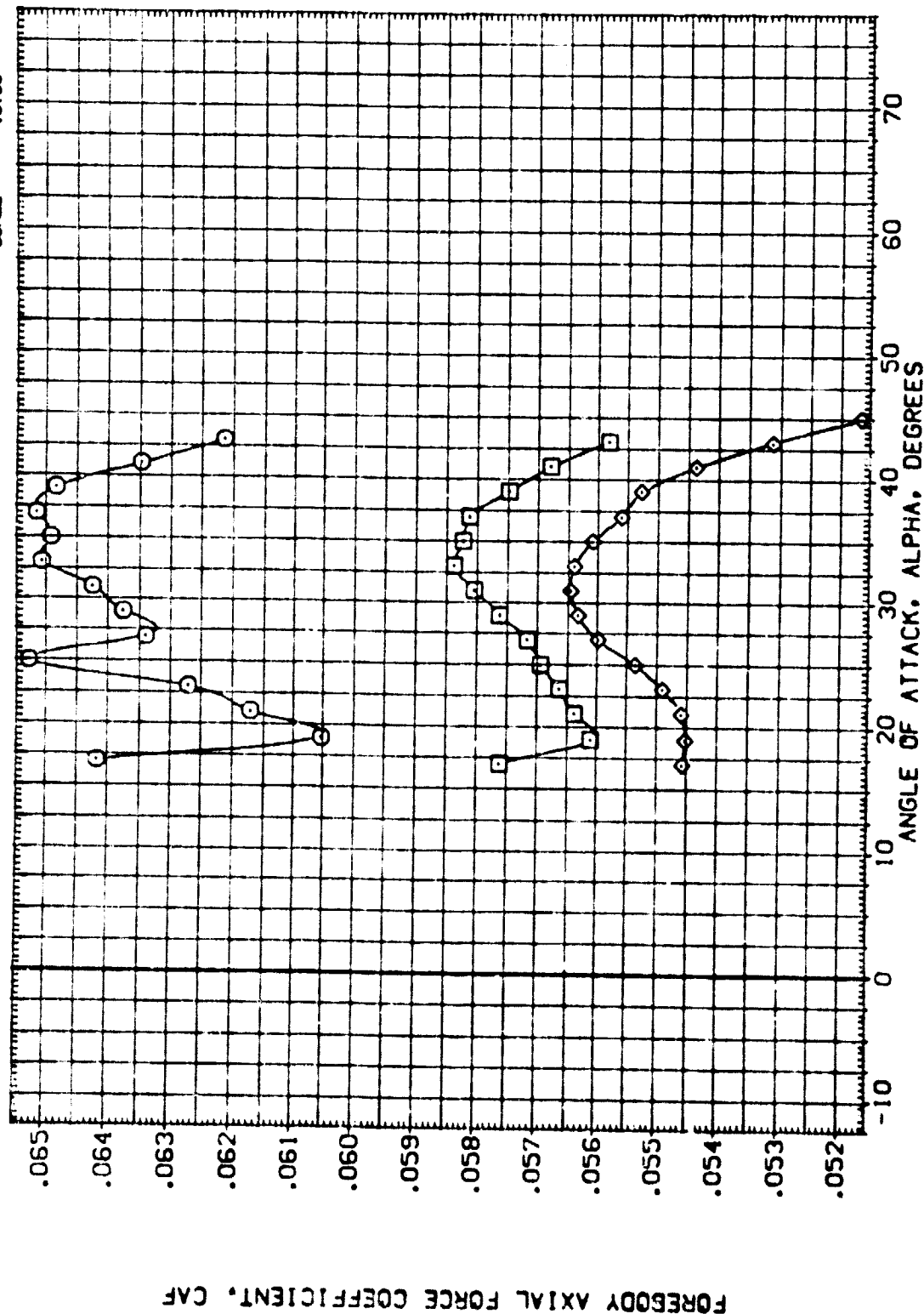


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		REFERENCE INFORMATION	
(CTV059)	Q179 B26 C9 E43 F8 M16 N28 R5 V8 V116	RVA	ELV-L1	SREF	2650.0000 92.00 FT.
(CTV048)	Q179 B26 C9 E43 F8 M16 N28 R5 V8 V116	ELV-L0	.000	LREF	474.8100 IN.
(CTV012)	Q179 B26 C9 E43 F8 M16 N28 R5 V8 V116	ELV-L0	.000	SREF	936.6800 IN.
		ELV-L0	.000	XREF	1076.0000 IN.
		ELV-L0	.000	YREF	0.0000 IN.
		ELV-L0	.000	ZREF	375.0000 IN.
		ELV-L0	.000	SCALE	.0150

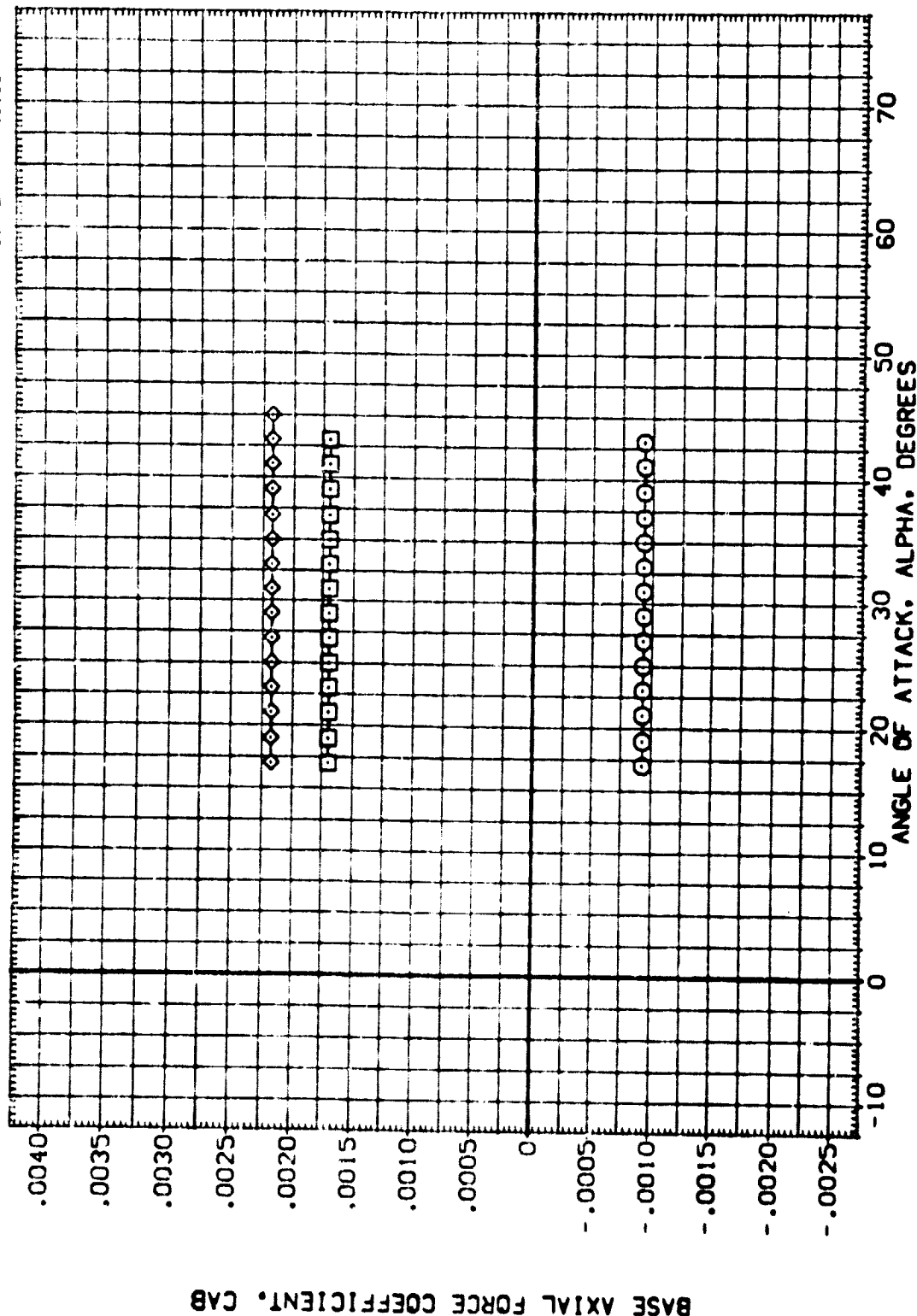


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BD FLAP	ELV-LB	ELV-LI	REFERENCE INFORMATION
(CIV059)	DATA 826 C9 E43 F8 M16 N28 RS V8 V116	.500	-11.700	.000	.000	SREF 2690.0000 50.FT.
(CIV048)	DATA 826 C9 E43 F8 M16 N28 RS V8 V116	1.860	-11.700	.000	.000	LREF 474.8100 IN.
(CIV012)	DATA 826 C9 E43 F8 M16 N28 RS V8 V116	3.530	-11.700	.000	.000	EREF 936.6900 IN.
						XREF 1078.6800 IN.
						YREF .0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

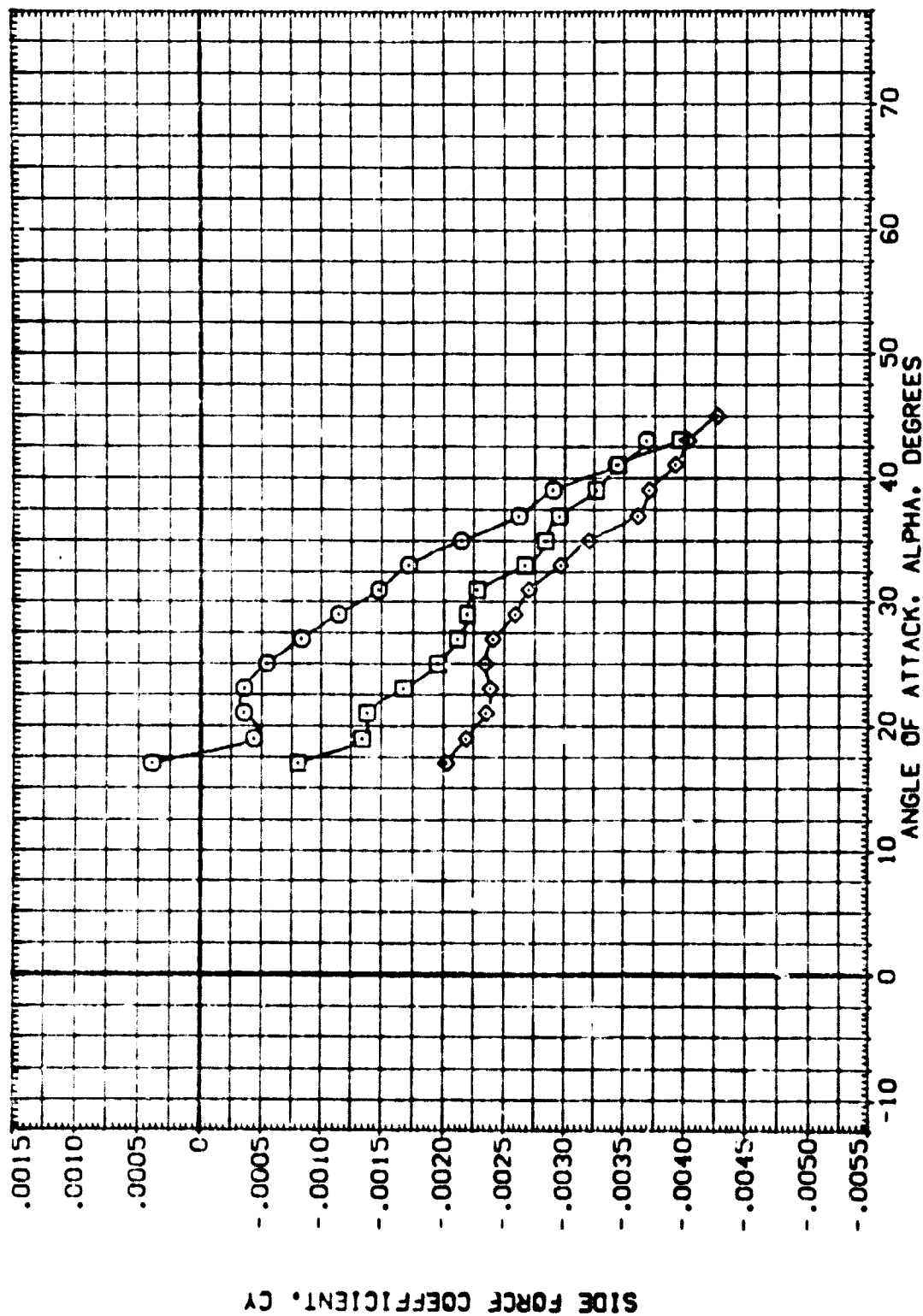


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVAL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(ATV059)	DATA B2E C3 E43 F8 M16 N08 R5 V8 V116	.500	-11.700	.000	.000	SREF 2690.0000 SQ.FT. IN.
(ATV048)	DATA B2E C3 E43 F8 M16 N08 R5 V8 V116	1.860	-11.700	.000	.000	LREF 474.8100 IN.
(ATV012)	DATA B2E C3 E43 F8 M16 N08 R5 V8 V116	3.530	-11.700	.000	.000	BREF 936.6800 IN.
						XREF 1076.6800 IN.
						YREF 375.0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

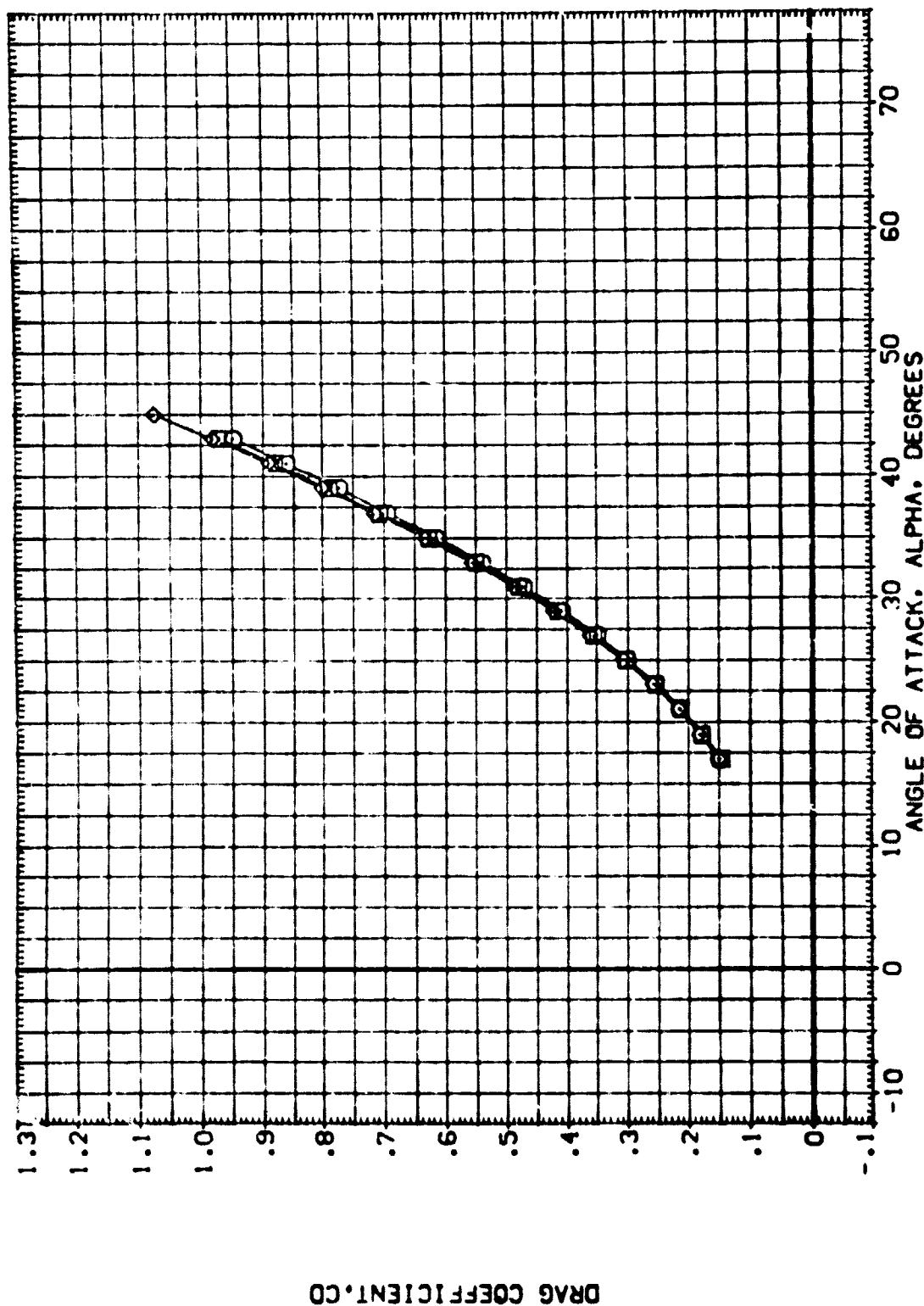


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(ATV059)	0479 B26 C9 E43 F8 M16 N28 R5 V8 VII6	
(ATV048)	0479 B26 C9 E43 F8 M16 N28 R5 V8 VII6	
(ATV012)	0479 B26 C9 E43 F8 M16 N28 R5 V8 VII6	

RVL GFLAP ELV-L0 ELV-L1

RVL	GFLAP	ELV-L0	ELV-L1
.500	-11.700	.000	.000
1.860	-11.700	.000	.000
3.530	-11.700	.000	.000

REFERENCE INFORMATION

REF	IN.
SREF	2690.0000
LSREF	474.8100
BSREF	936.6800
XTREF	1076.0000
YREF	375.0000
ZREF	0150

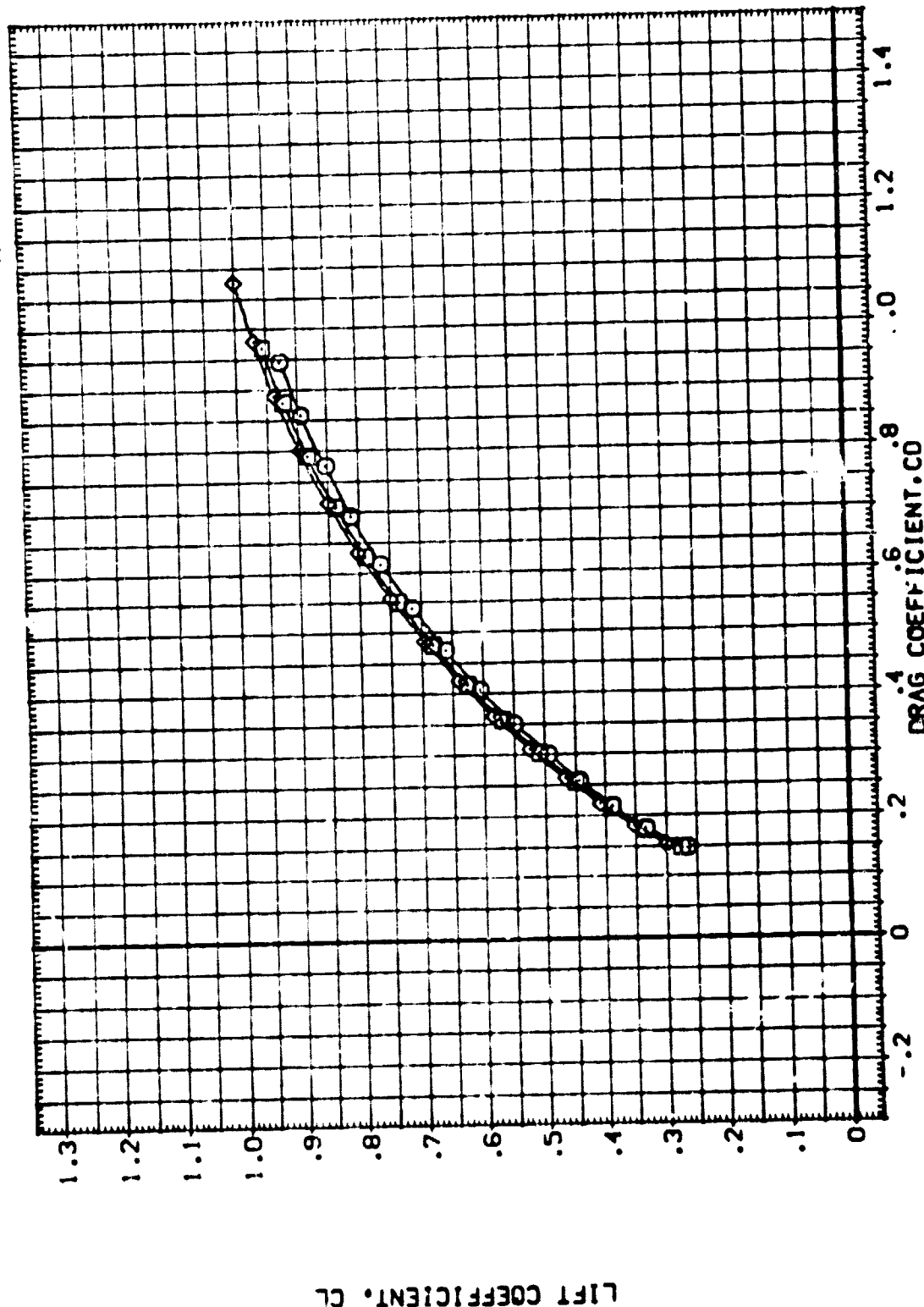


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RNAL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(ATV059)	QAT9 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	-11.700	.000	.000	SREF 2690.0000 50.FT.
(ATV048)	QAT9 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.050	-11.700	.000	.000	LREF 474.8100 IN.
(ATV012)	QAT9 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	-11.700	.000	.000	BREF 936.6900 IN.
						XARP 1076.6900 IN. X8
						YARP .0000 IN. Y8
						ZARP 375.0000 IN. Z8
						SCALE .0150

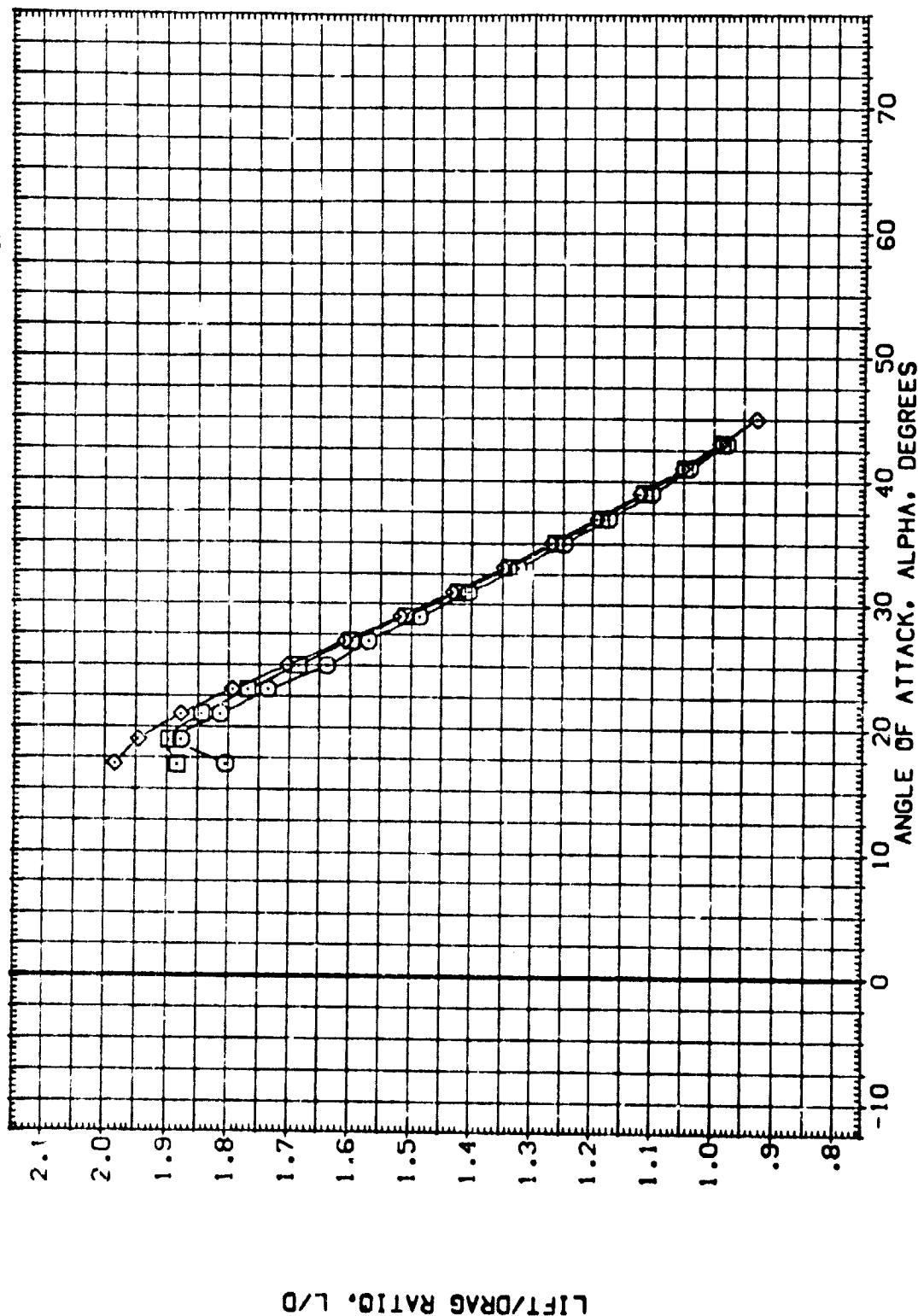


FIG. 23 REYNOLDS NUMBER EFFECTS (ELEVON = 0, BODY FLAP=-11.7)

(A)MACH = 7.90



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CTV056) 0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (CTV051) 0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (CTV017) 0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116

RM/L .500  
 1.860  
 3.530

60FL/P .000  
 .000  
 .000

ELV-L3 10.000  
 10.000  
 10.000

ELV-L1 10.000  
 10.000  
 10.000

REFERENCE INFORMATION  
 SREF 2690.0000 50. FT.  
 LREF 474.8100 IN.  
 BREF 906.6800 IN.  
 XMRP 1076.6900 IN. X0  
 YMRP .0000 IN. Y0  
 ZMRP 375.0000 IN. Z0  
 SCALE .0150

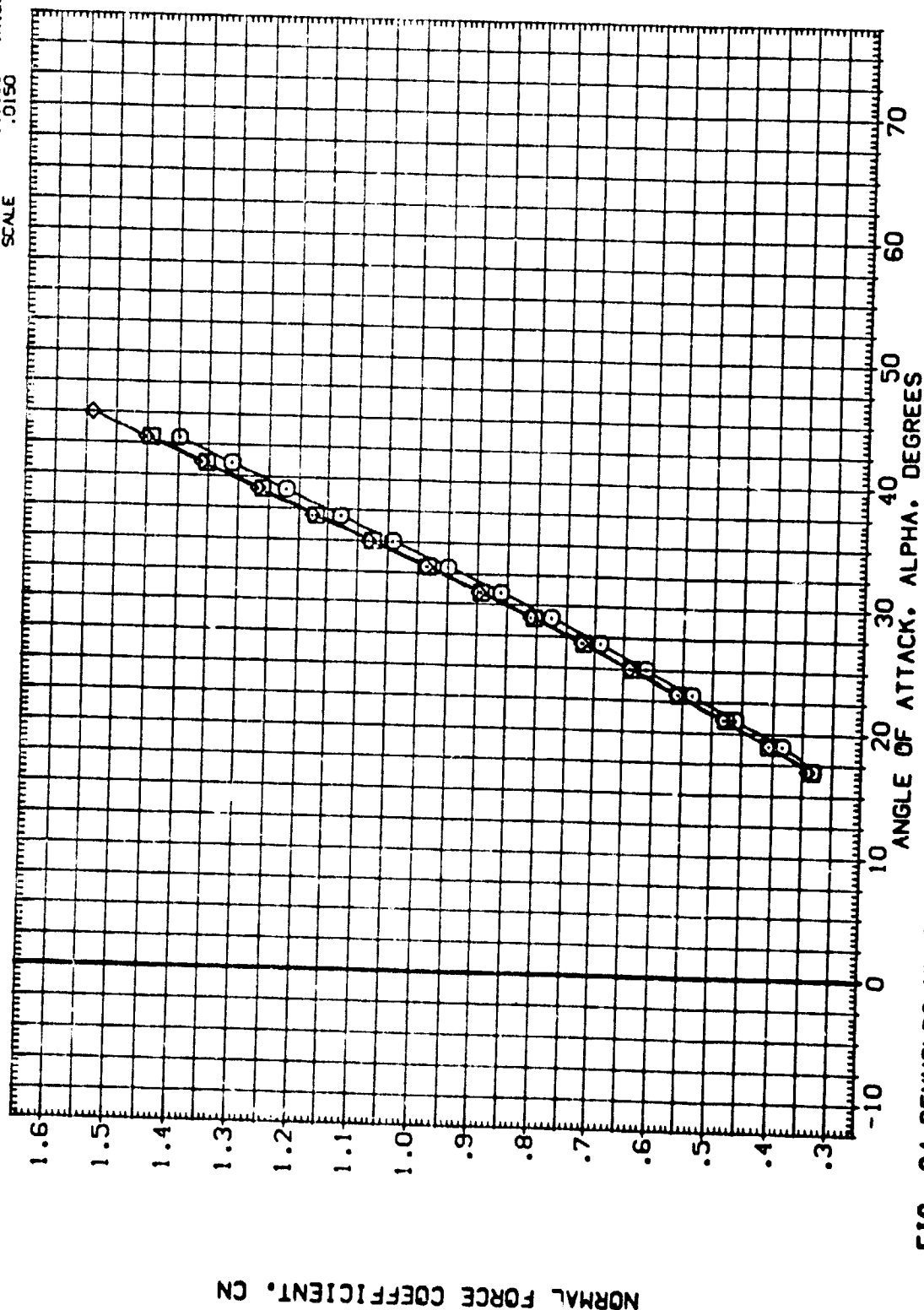


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP= 0)  
 (A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTM056)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	10.000	10.000	SREF 2690.0000 SQ.FT.
(CTM051)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	.000	10.000	10.000	LREF 474.8100 IN.
(CTM017)	DA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	10.000	10.000	BREF 936.6800 IN.
						XREF 1076.6800 IN.
						YREF .0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH(FORWARD C. G.) CLMFW

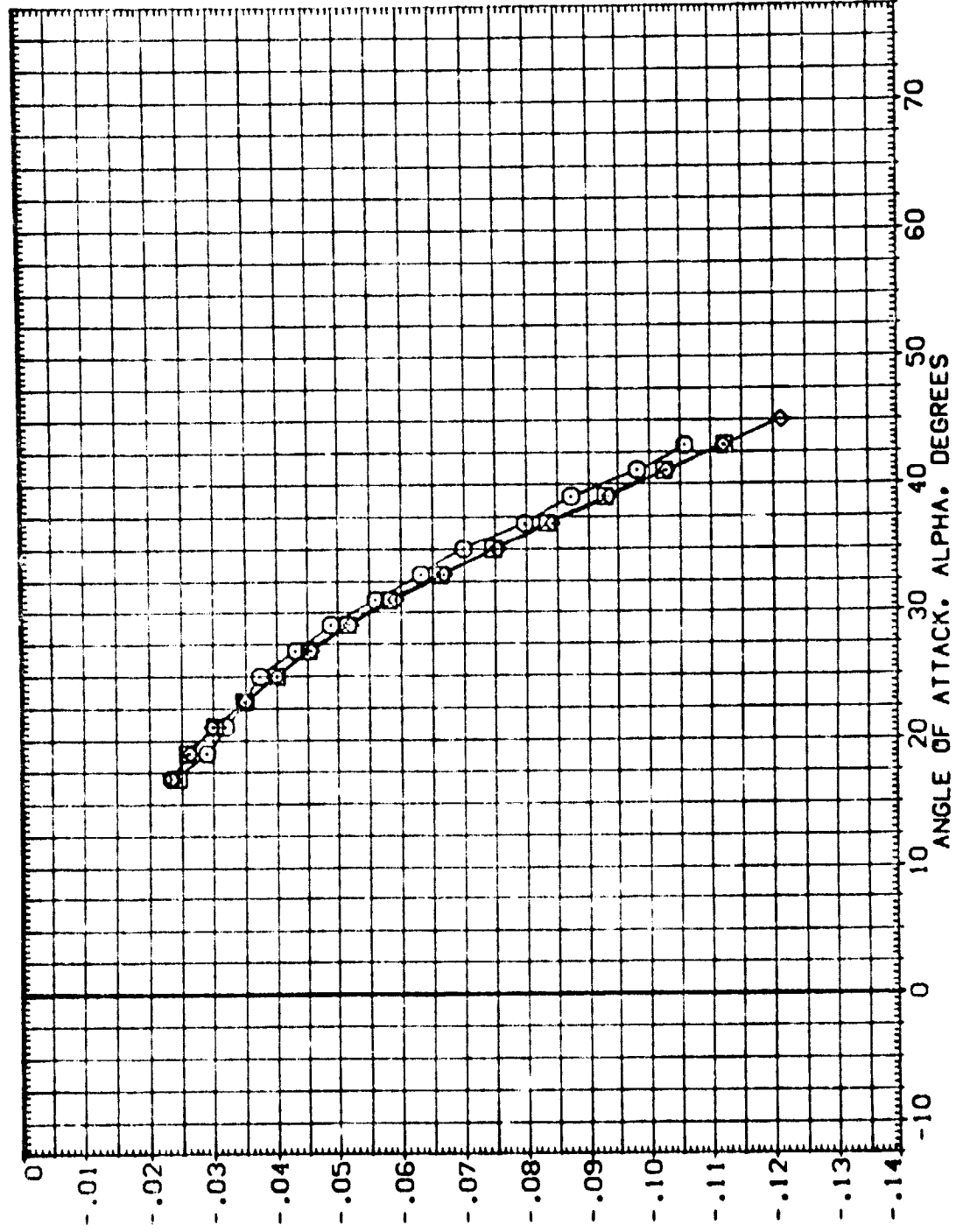


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP= 0)

(A)MACH = 7.90

DATA SET SYMBOL: (CTV056) (CTV051) (CTV017)

CONFIGURATION DESCRIPTION: 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116  
 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116

RV/L: .500  
 1.860  
 3.530

BD FLAP: .000  
 .000  
 .000

ELV-L0: 10.000  
 10.000  
 10.000

ELV-L1: 10.000  
 10.000  
 10.000

REFERENCE INFORMATION: SREF 2690.0000 50.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XTRP 1076.0000 IN.  
 YTRP 375.0000 IN.  
 ZTRP 375.0000 IN.  
 SCALE .0150

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH(AFT C. G.) CLMAYT

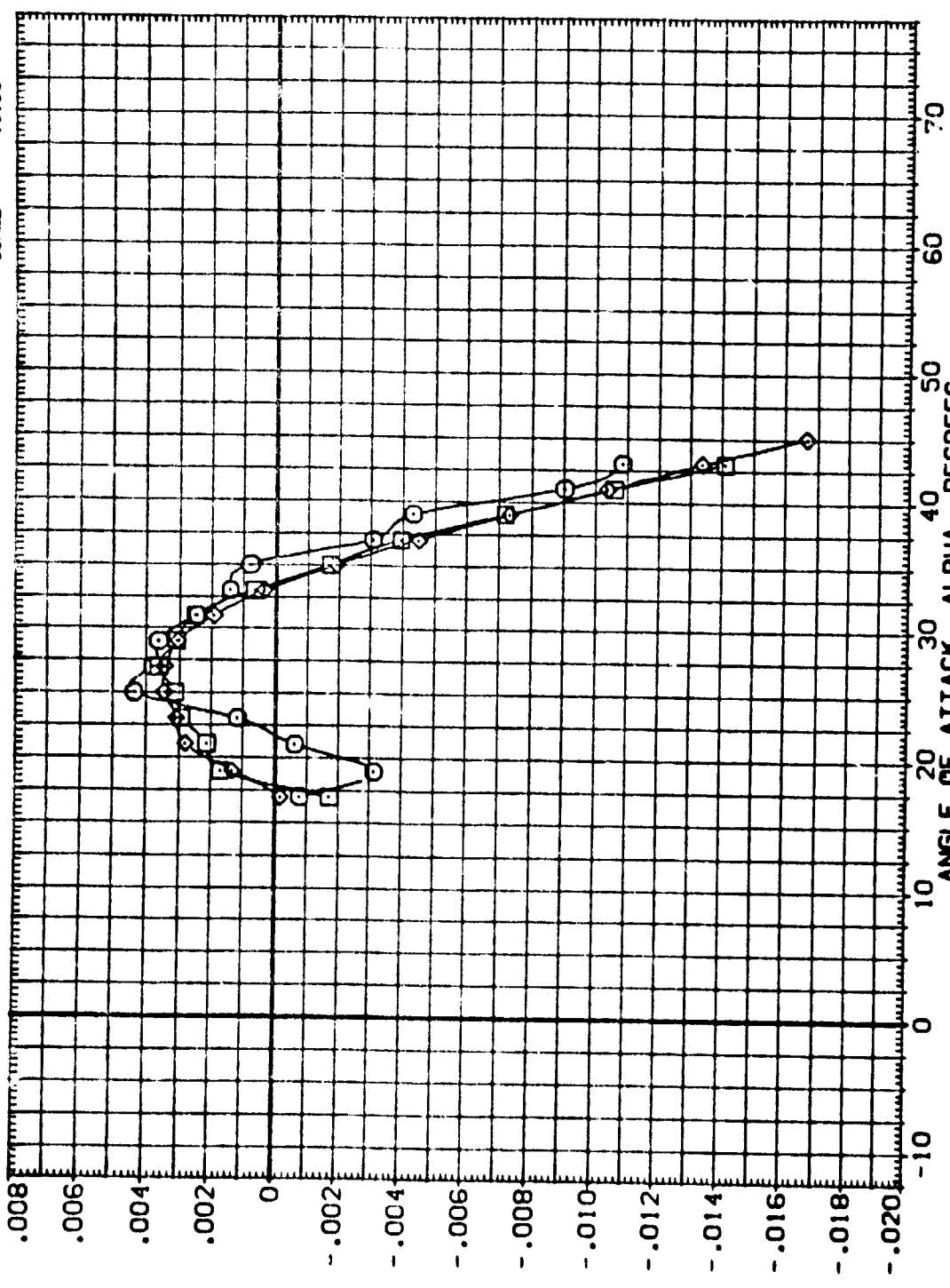


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP= 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CIV056)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	.500	.000	10.000	10.000	SREF 2630.0000 SQ.FT.
(CIV051)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	1.860	.000	10.000	10.000	LREF 474.8100 IN.
(CIV017)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	3.530	.000	10.000	10.000	BREF 536.6300 IN.X0
						XREF 1076.6800 IN.Y0
						YREF .0000 IN.Y0
						ZREF .0000 IN.Z0
						SCALE .0150

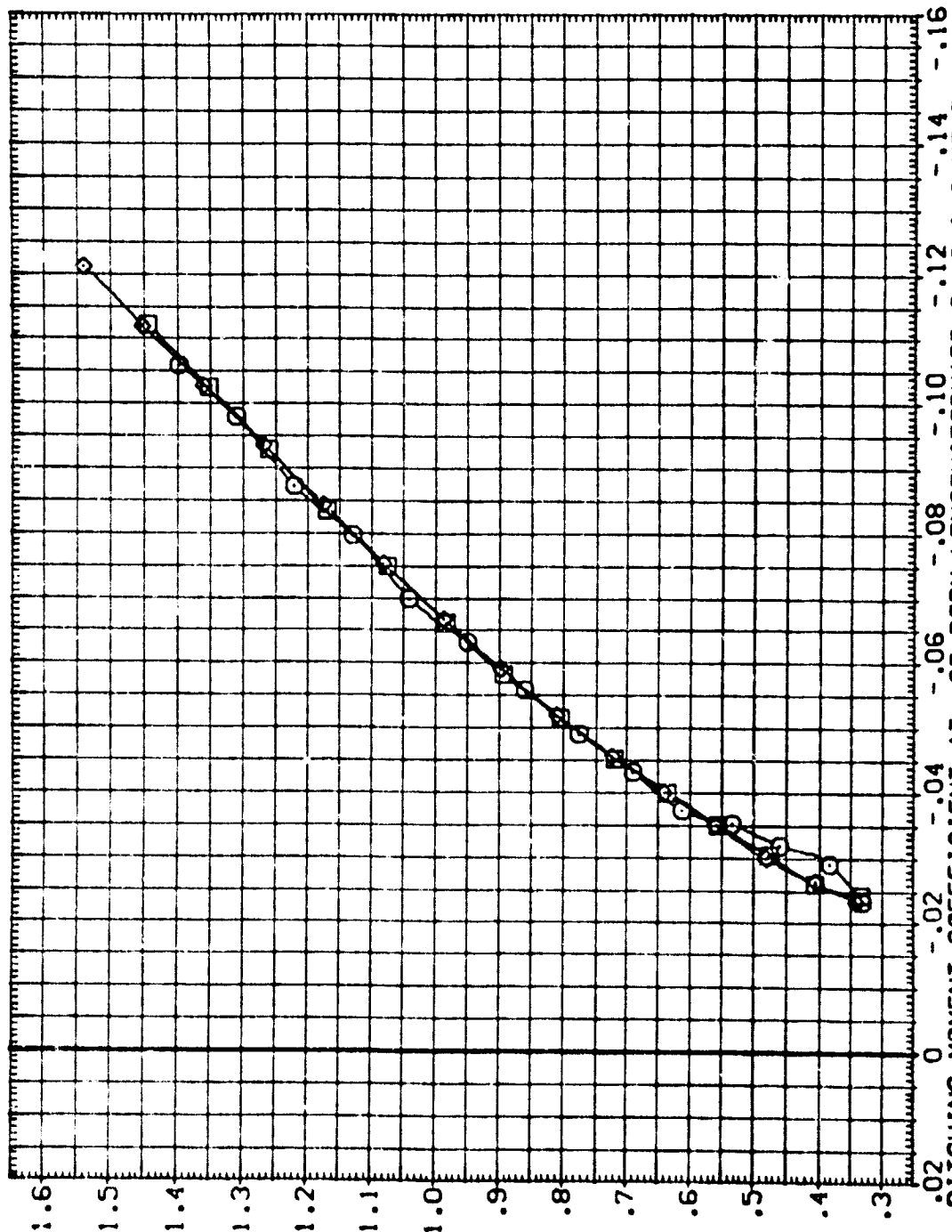


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 0)

(A)MACH = 7.90

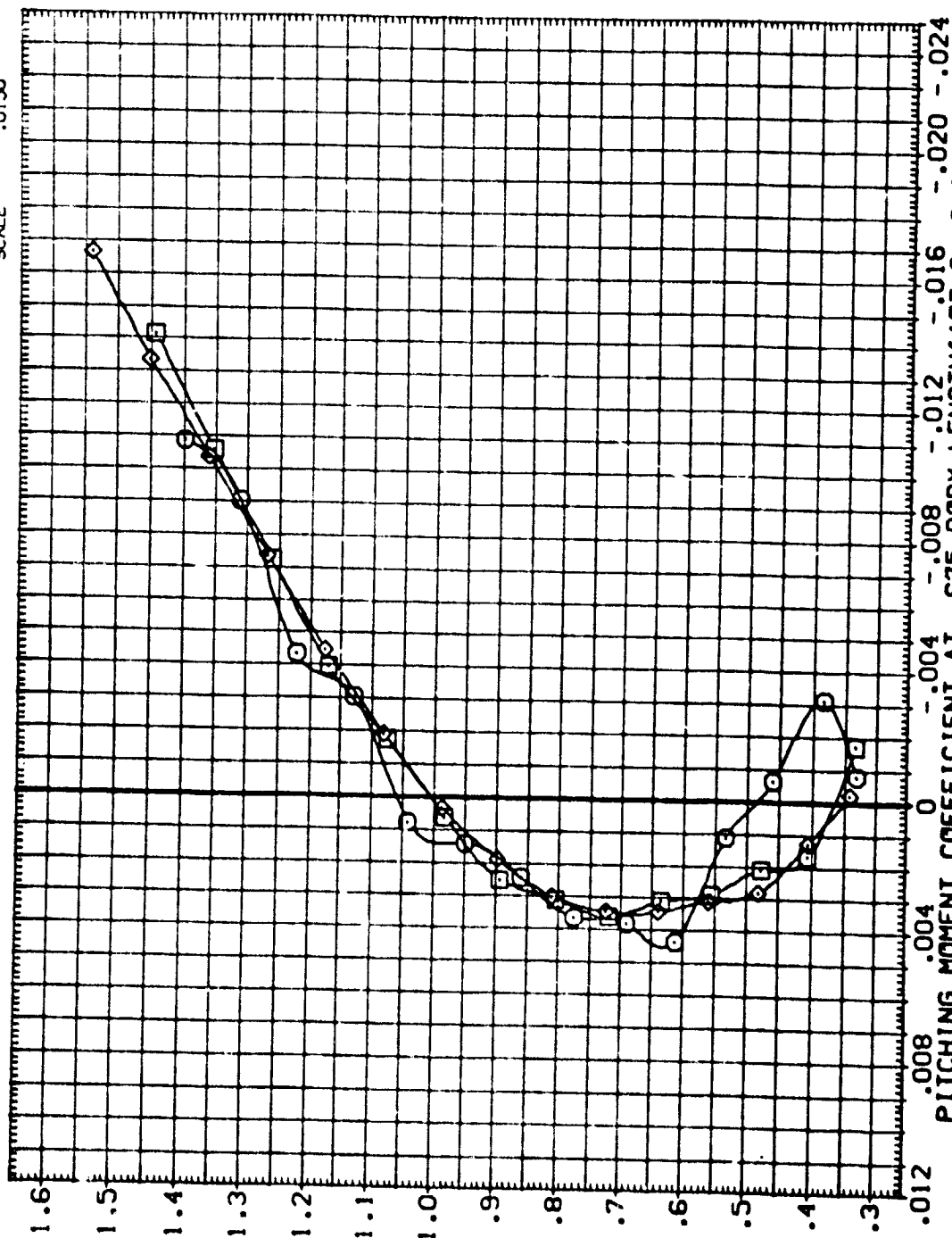
DATA SET SYMBOL  
(CTV055)  
(CTV051)  
(CTV017)

CONFIGURATION DESCRIPTION  
0A79 B26 C9 E43 F8 M16 N28 RS V8 V116  
0A79 B26 C9 E43 F8 M16 N28 RS V8 V116  
0A79 B26 C9 E43 F8 M16 N28 RS V8 V116

RM/L  
.500  
1.860  
3.530

BOFLAP  
.000  
.000  
.000

REFERENCE INFORMATION  
SREF 2630.0000 50. FT.  
LREF 474.8100 IN.  
BREF 936.6800 IN.  
XREF 1076.6800 IN.  
YREF .0000 IN.  
ZREF 375.0000 IN.  
SCALE .0150



NORMAL FORCE COEFFICIENT, CN

FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PNL	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CIV056)	DAY8 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	10.000	10.000	SREF 2690.0000 50.FT.
(CIV051)	DAY9 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.850	.000	10.000	10.000	LREF 474.8100 IN.
(CIV017)	DAY9 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	10.000	10.000	BREF 936.6800 IN.
						XREF 1076.6800 IN. X0
						YREF .0000 IN. Y0
						ZREF .0000 IN. Z0
						SCALE .0150

CENTER OF PRESSURE LOCATION AS A FRACTION OF BODY LENGTH, XCP/L

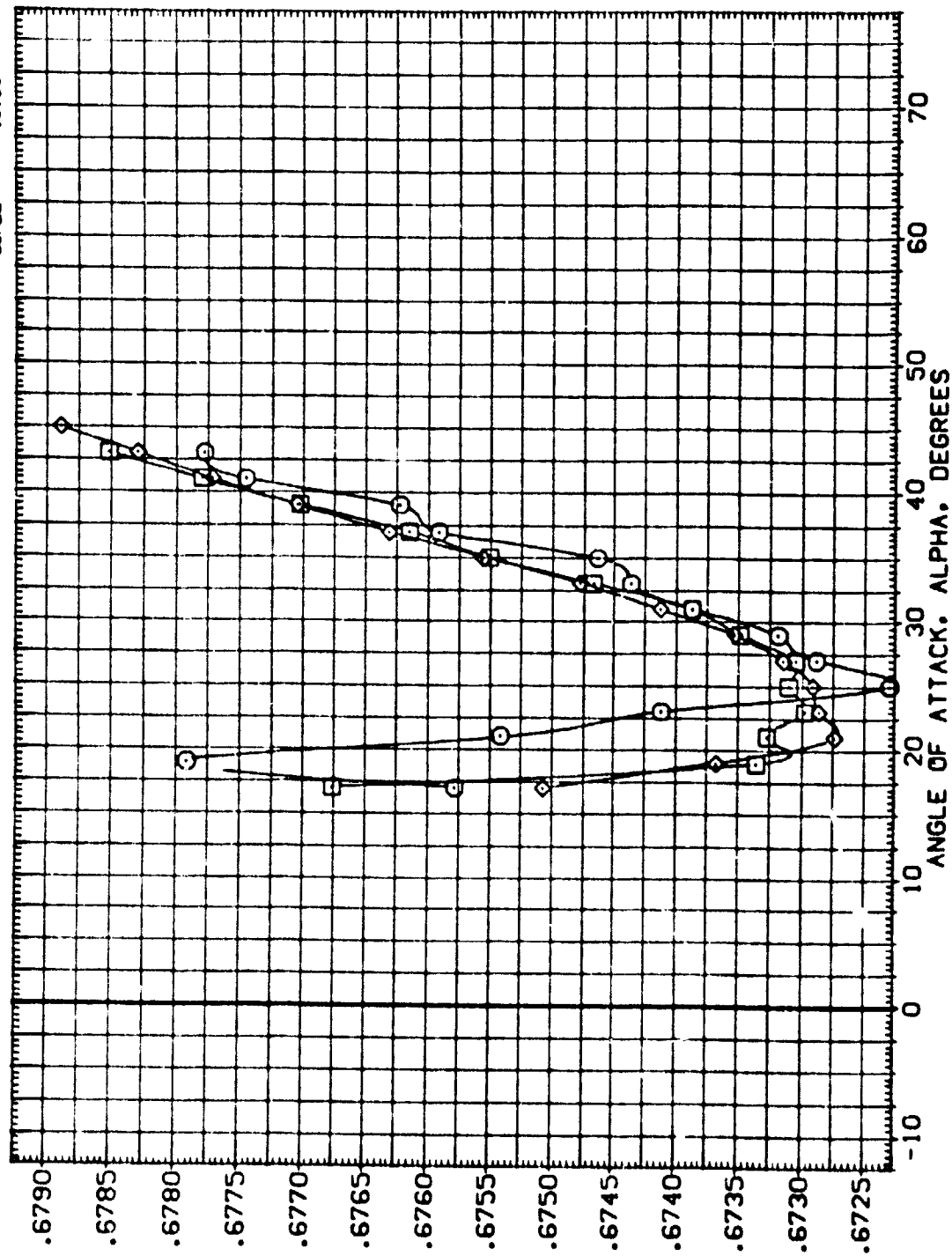


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL: (CTV056) (CTV051) (CTV017)

CONFIGURATION DESCRIPTION: 0A79 B26 C9 E43 F8 H16 N28 RS V8 V116  
0A79 B26 C9 E43 F8 H16 N28 RS V8 V116  
0A79 B26 C9 E43 F8 H16 N28 RS V8 V116

RV/L: .500  
1.860  
3.530

BOFLAP: .000  
.000  
.000

ELV-L0: 10.000  
10.000  
10.000

ELV-L1: 10.000  
10.000  
10.000

REFERENCE INFORMATION: SREF 2690.0000 50.FT.  
LREF 474.8100 IN.  
BREF 536.6800 N.X0  
XREF 1076.6800 N.Y0  
YREF .0000 N.Z0  
ZREF 375.0000 N.Z0  
SCALE .0150

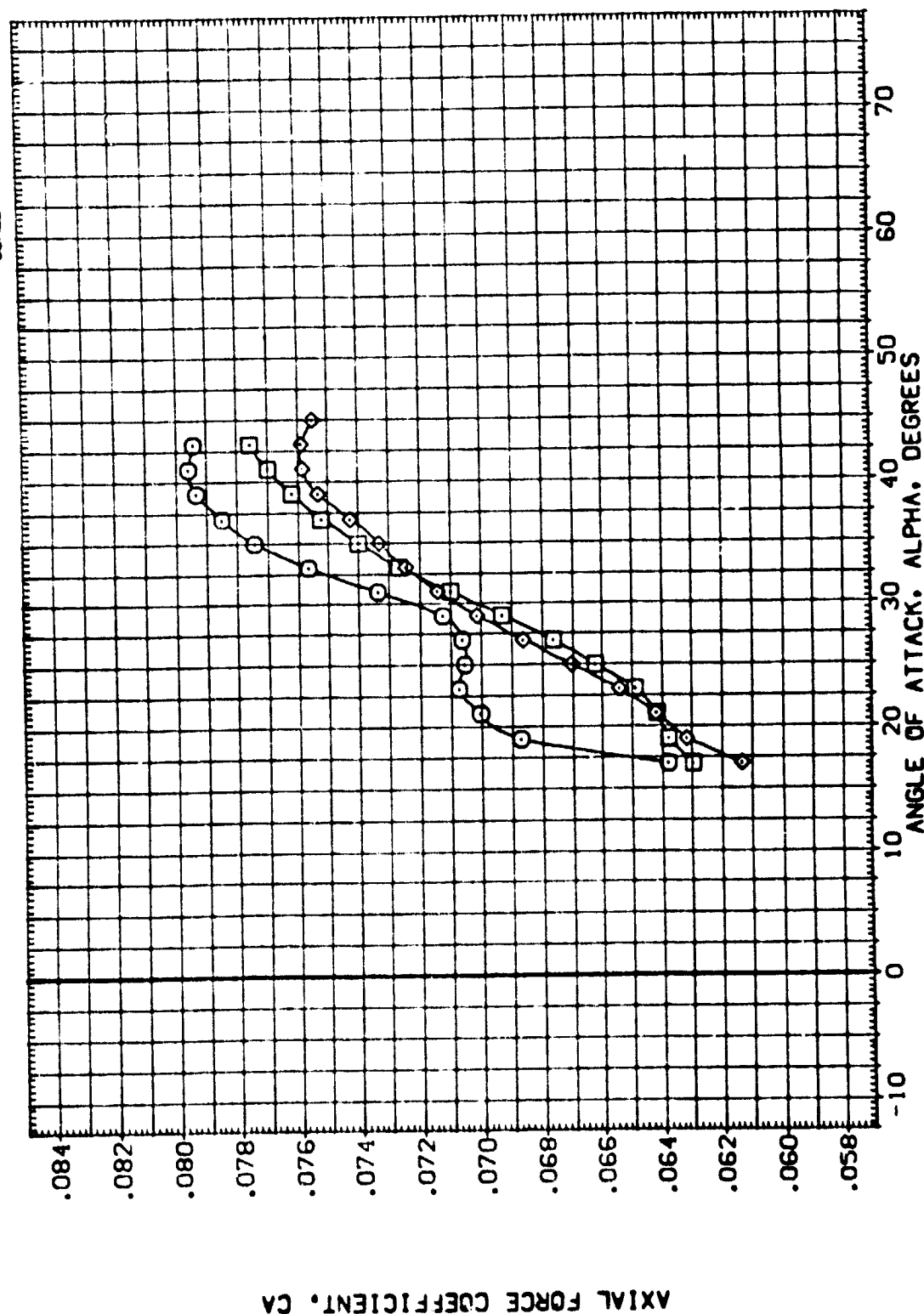


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1W056)	0A79 826 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	10.000	10.000	SREF 2690.0000 SQ.FT.
(C1W051)	0A79 826 C9 E43 F8 M16 N28 R5 V8 V116	1.860	.000	10.000	10.000	LREF 474.8100 IN.
(C1W017)	0A79 826 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	10.000	10.000	DREF 936.6800 IN.
						XREF 1076.6800 IN.
						YREF 375.0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

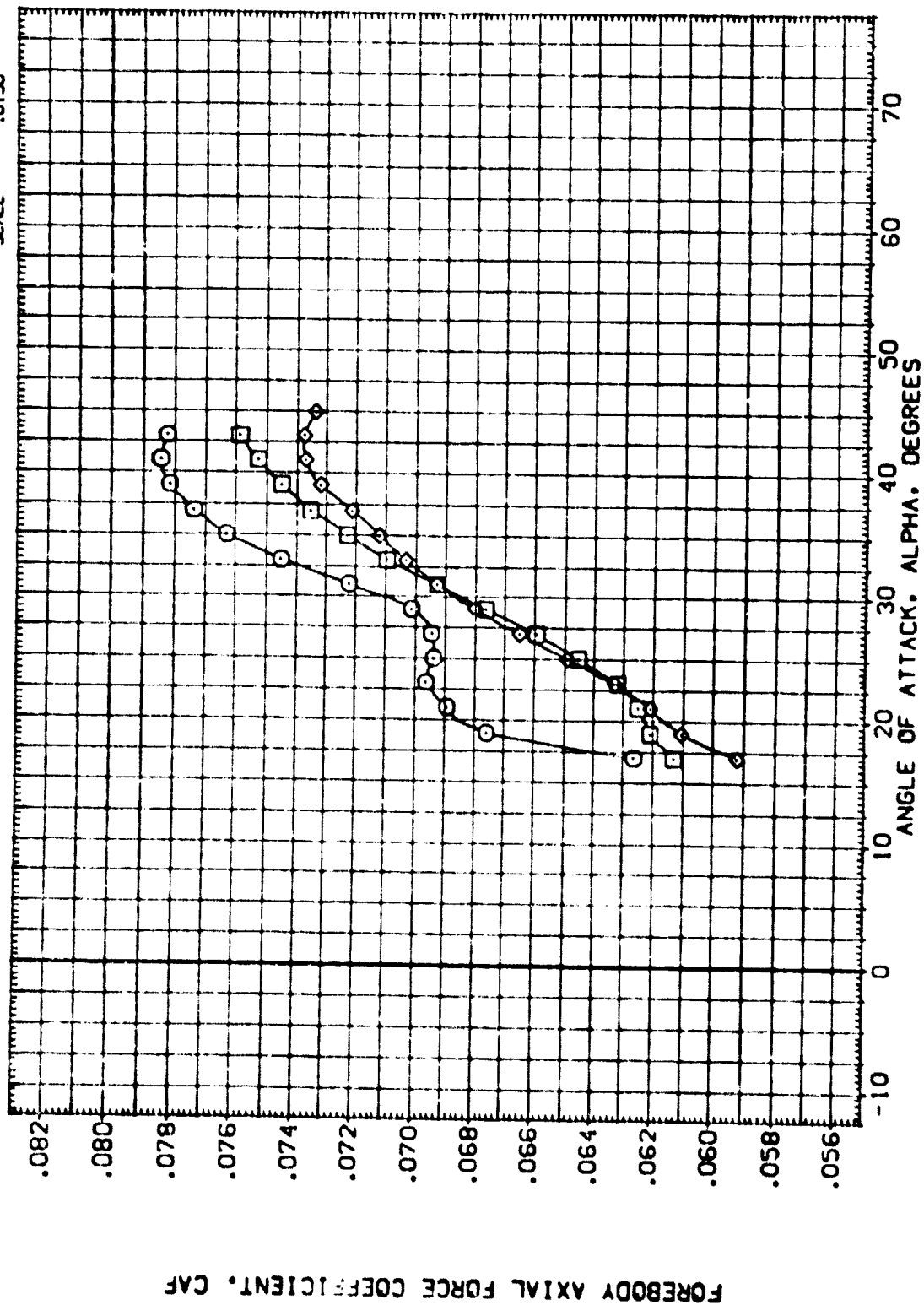


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 0)

(A)MACH = 7.90



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      REFERENCE INFORMATION

[CTV056]	0A79 B26 C9 E43 F8 H16 N28 R5 V8 VII6	BREF 2690.0000 50.FT.
[CTV051]	0A79 B26 C9 E43 F8 H16 N28 R5 V8 VII6	LREF 474.8100 IN.
[CTV017]	0A79 B26 C9 E43 F8 H16 N28 R5 V8 VII6	BREF 936.6800 IN.
		XREF 1076.0000 IN.X8
		YREF 375.0000 IN.Y8
		ZREF 375.0000 IN.Z8
		SCALE .0150

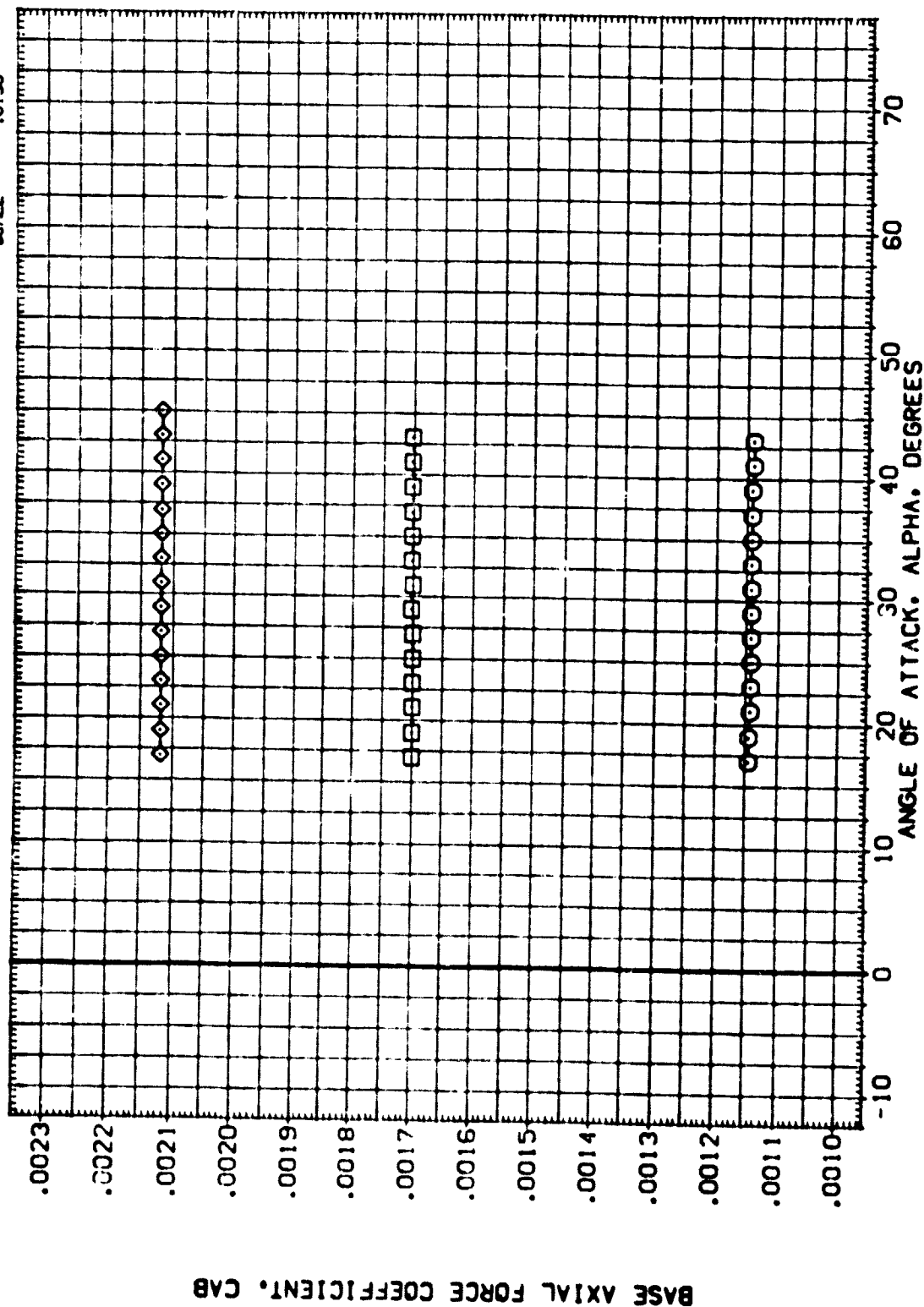


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV056)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.500	.000	10.000	10.000	SREF 2690.0000 SQ.FT.
(CTV051)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	1.960	.000	10.000	10.000	LREF 474.8100 IN.
(CTV017)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	3.530	.000	10.000	10.000	SREF 936.6800 IN.
						XREF 1076.6800 IN.
						YREF .0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

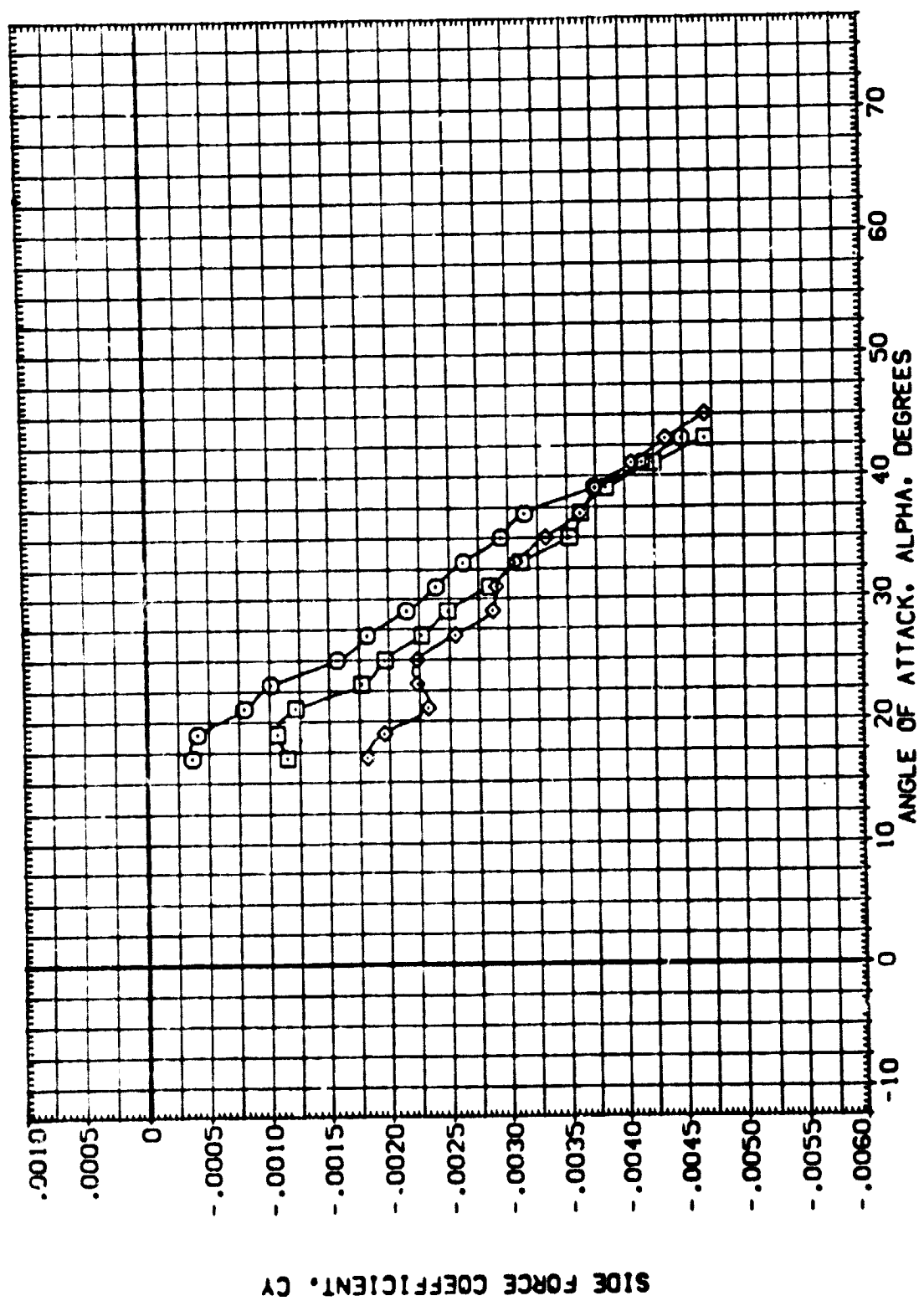


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 0)

(A)MACH = 7.90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RAVL	BDFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(ATV036)	0A79 826 C9 E43 F8 M16 N08 R5 V8 V116	.500	.000	10.000	10.000	SREF 2690.0000 SO.FT.
(ATV031)	0A79 826 C9 E43 F8 M16 N08 R5 V8 V116	1.860	.000	10.000	10.000	LREF 474.8100 IN.
(ATV017)	0A79 826 C9 E43 F8 M16 N08 R5 V8 V116	3.530	.000	10.000	10.000	BREF 936.6800 IN.
						YREF 1076.6800 IN.
						YREF .0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

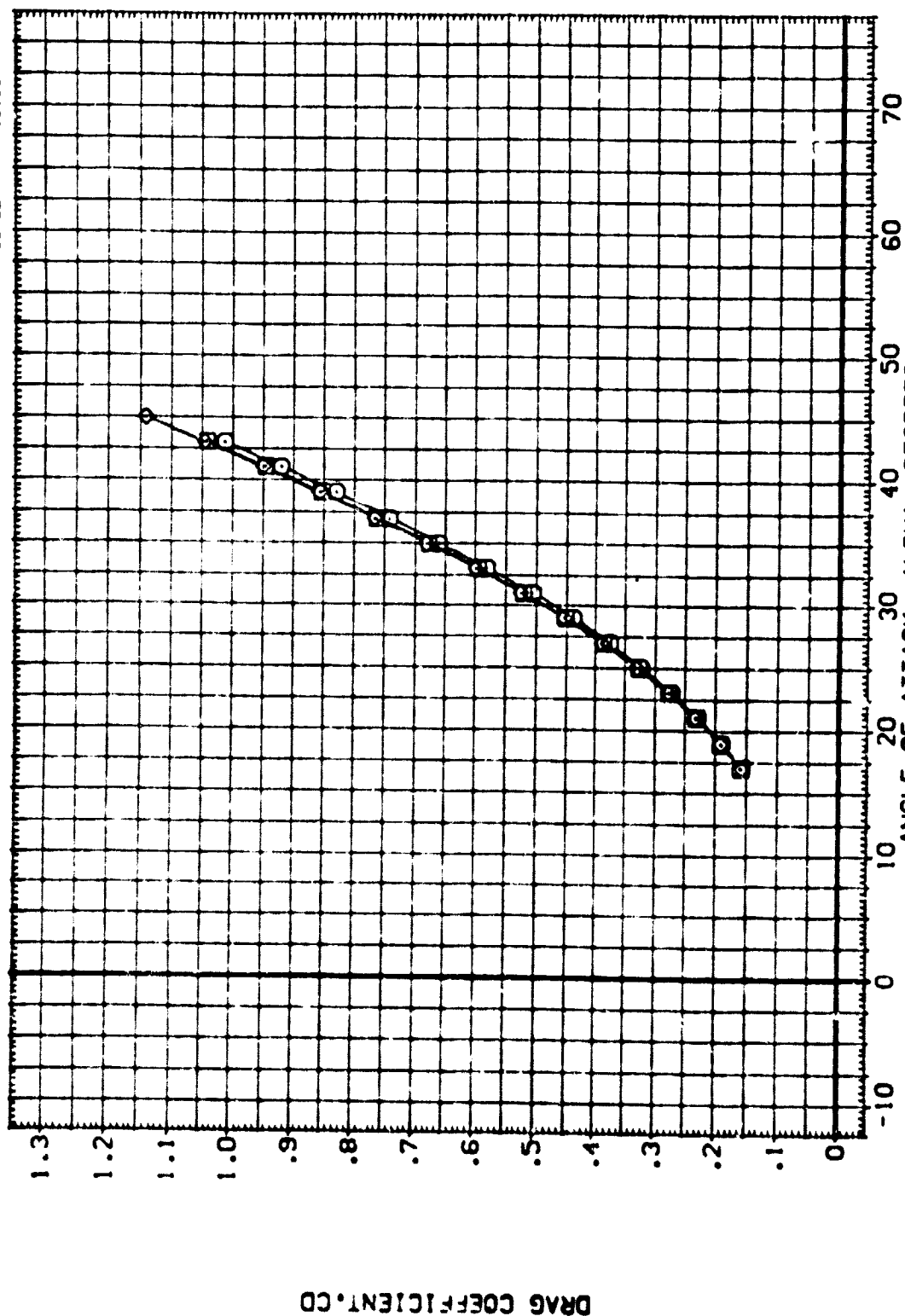


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP= 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(ATW056)	0A79 826 C9 E43 F8 H16 N28 RS V8 V116	.500	.000	10.000	10.000	SREF 2690.0000 50.FT.
(ATW051)	0A79 826 C9 E43 F8 H16 N28 RS V8 V116	1.060	.000	10.000	10.000	LREF 474.8100 IN.
(ATW017)	0A79 826 C9 E43 F8 H16 N28 RS V8 V116	3.530	.000	10.000	10.000	SREF 936.6800 IN.
						XREF 1076.0000 IN.X0
						YREF 375.0000 IN.Y0
						ZREF .0150
						SCALE

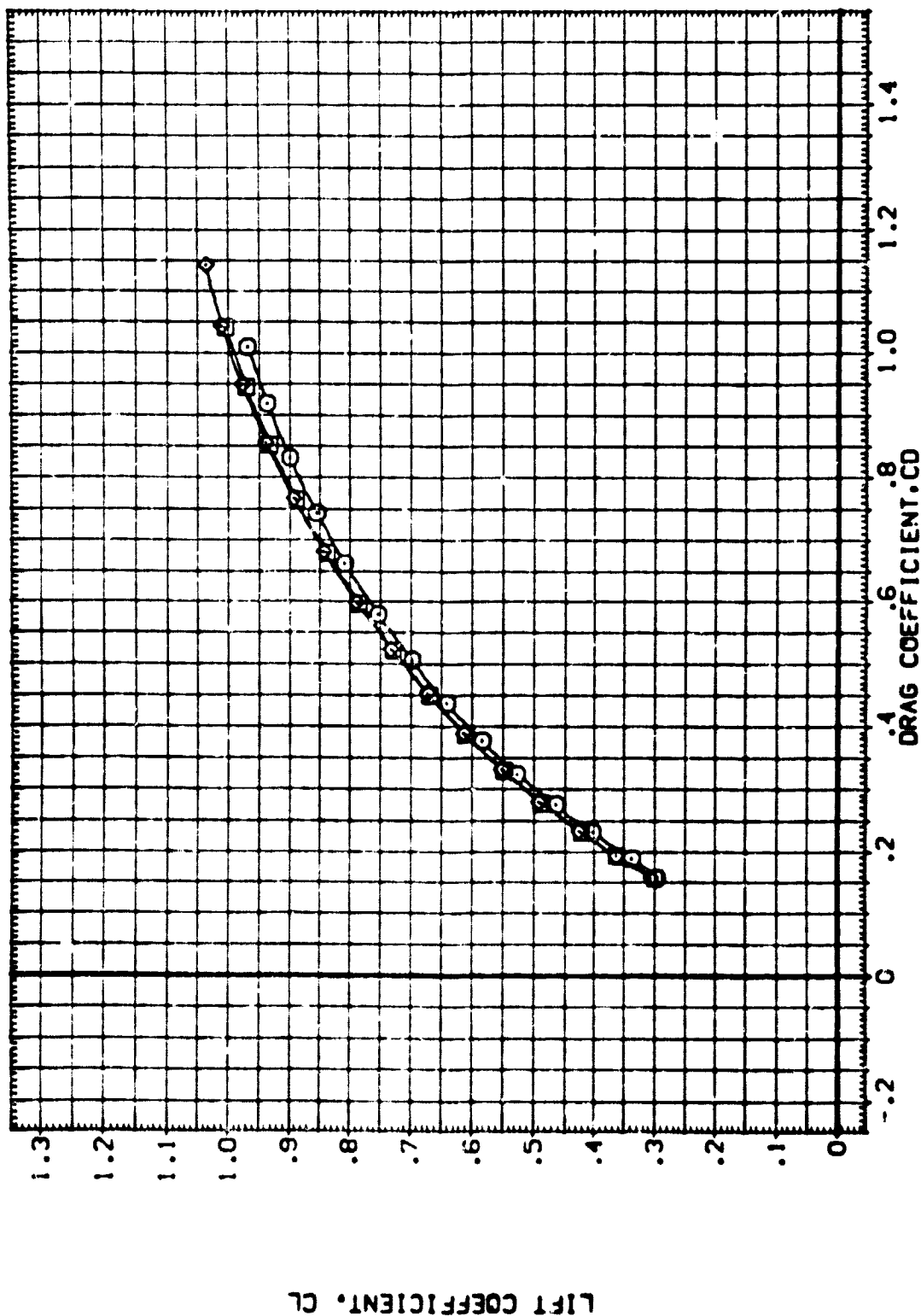


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP= 0)  
(A)MACH = 7.50

DATA SET SYMBOL	CONF IGURATION DESCRIPTION	RVL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(ATV056)	0A79 B26 C9 E43 F8 M15 N28 R5 V8 V116	500	.000	10.000	10.000	SREF 2690.0000 SQ.FT.
(ATV051)	0A79 B26 C9 E43 F8 M1E N28 R5 V8 V116	1.860	.000	10.000	10.000	LREF 474.8100 IN.
(ATV017)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	10.000	10.000	BREF 936.6900 IN.
						XREF 1076.6800 IN.X0
						THRP 375.0000 IN.Y0
						ZHRP .0150
						SCALE

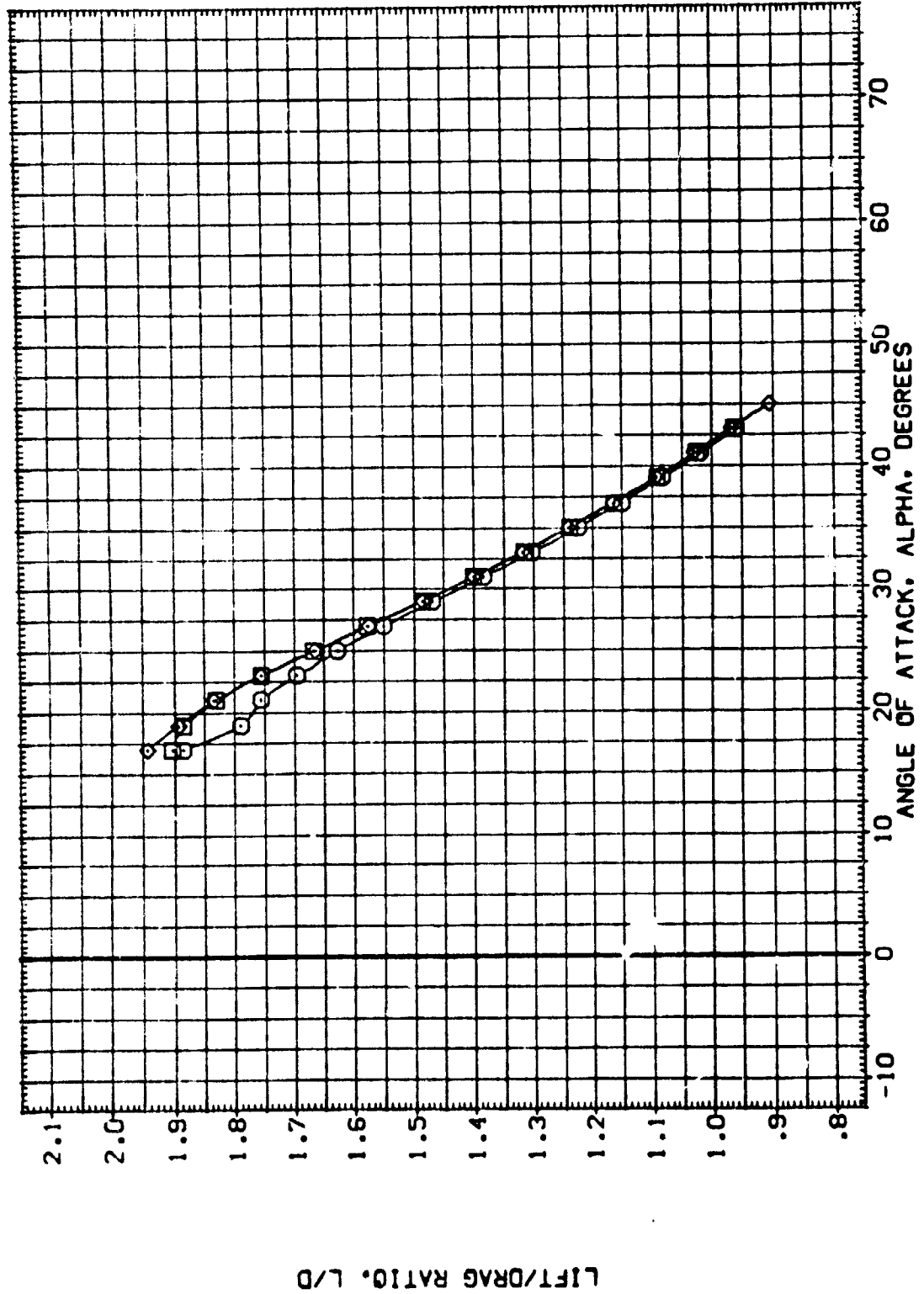


FIG. 24 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP= 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BOFLAP	ELV-LD	ELV-LI	REFERENCE INFORMATION
(CIV051)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	20.000	20.000	SREF 2690.0000 SQ.FT.
(CIV052)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.050	.000	20.000	20.000	LREF 474.8100 IN.
(CIV020)	0A79 B2 C9 E43 F8 M13 N28 R5 V8 V116	1.530	.000	20.000	20.000	BREF 836.0000 IN.
						XREF 1076.8900 IN.
						YREF 375.0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

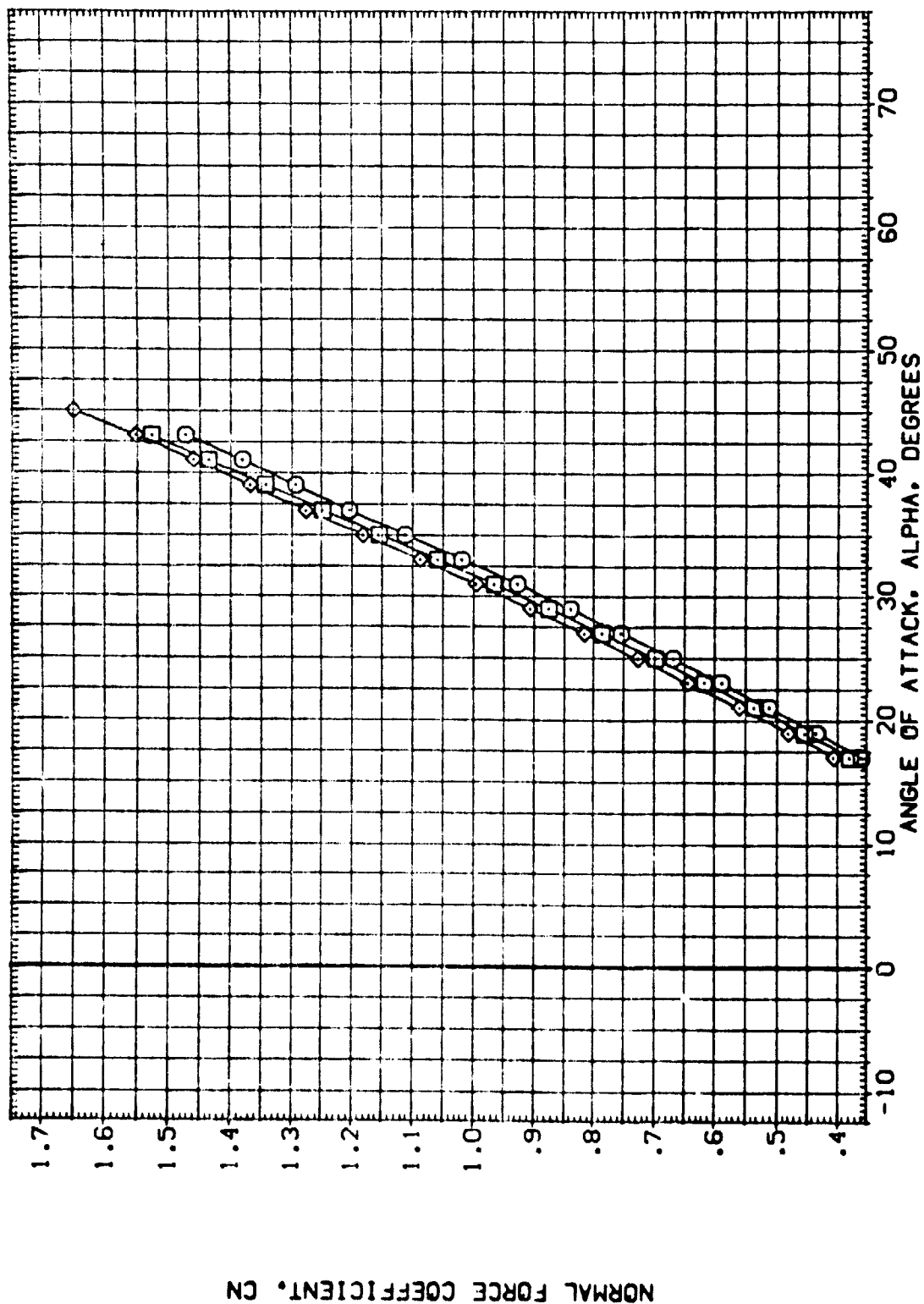


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV061)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	20.000	20.000	SREF 2690.0000 SQ.FT.
(CTV062)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.060	.000	20.000	20.000	LREF 474.8100 IN.
(CTV020)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	20.000	20.000	BREF 936.6600 IN.
						XMRP 1076.0000 IN.X0
						YMRP .0000 IN.Y0
						ZMRP 375.0000 IN.Z0
						SCALE .0150

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH(FORWARD C. G.) CLMFWO

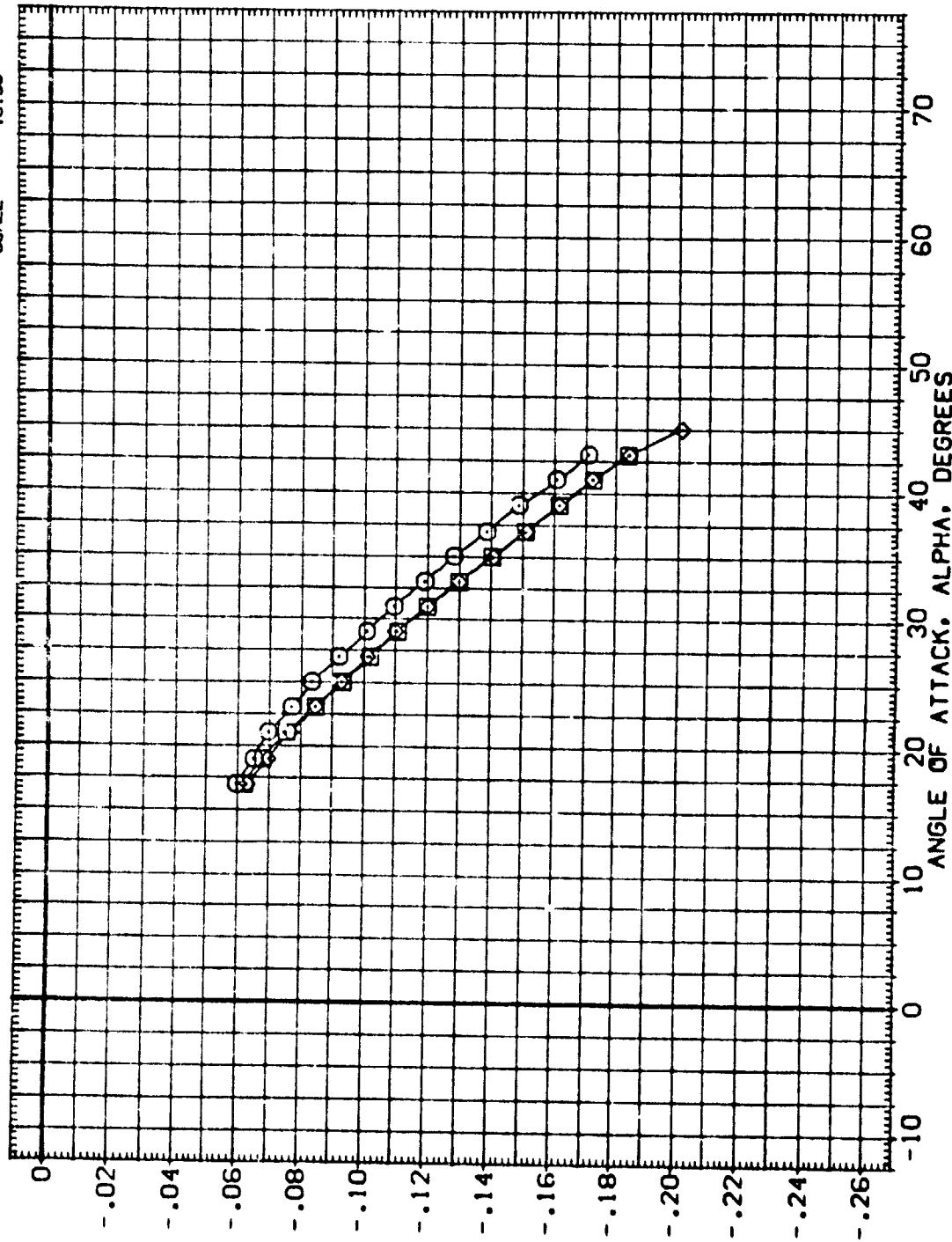


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP= 0)

(A)MACH = 7.90



DATA SET SYMBOL: (C1V061), (C1V062), (C1V020)

CONFIGURATION DESCRIPTION: DAY8 B26 C9 E43 F8 M16 N28 P5 V8 V116, DAY8 B26 C9 E43 F8 M16 N28 P5 V8 V116, DAY8 B26 C9 E43 F8 M16 N28 P5 V8 V116

RVL: 500, 1.860, 3.530

SCFLAP: .000, .000, .000

ELV-L1: 20.000, 20.000, 20.000

ELV-L0: 20.000, 20.000, 20.000

REFERENCE INFORMATION: SREF 2690.0000, LREF 474.8100, BREF 936.8800, XPRP 1076.8800, YPRP .0000, ZPRP .0000, IN.X0 IN.Y0 IN.Z0, SCALE 375.0000, .0150

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH(AFT C. G.) CLMAFT

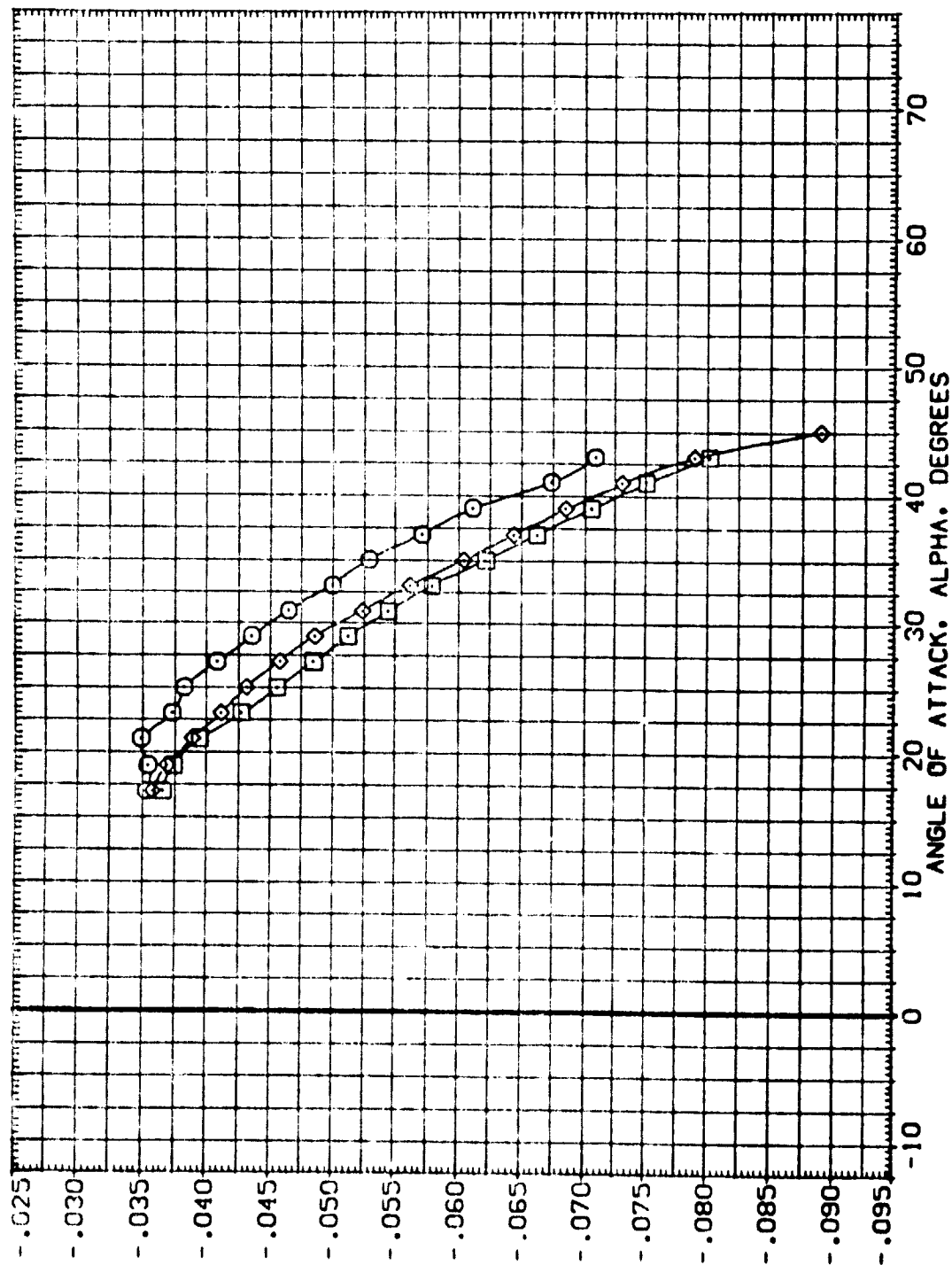


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP= 0)

(A)MACH = 7.90

DATA SET SYMBOL: (C1M0511) (C1M052) (C1M020)

CONFIGURATION DESCRIPTION: 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116  
0A79 B26 C9 E43 F8 M16 N28 RS V8 V116  
0A79 B26 C9 E43 F8 M16 N28 RS V8 V116

BOFLAP: .000 .000 .000

RVL: 1.500 1.860 3.530

ELV-L1: 20.000 20.000 20.000

ELV-L0: 20.000 20.000 20.000

REFERENCE INFORMATION: SREF 2690.0000 SQ.FT. IN.  
LREF 474.8100 IN.  
BREF 936.6600 IN.  
XPRP 1076.6800 IN.  
YPRP .0000 IN.  
ZPRP 375.0000 IN.  
SCALE .0150

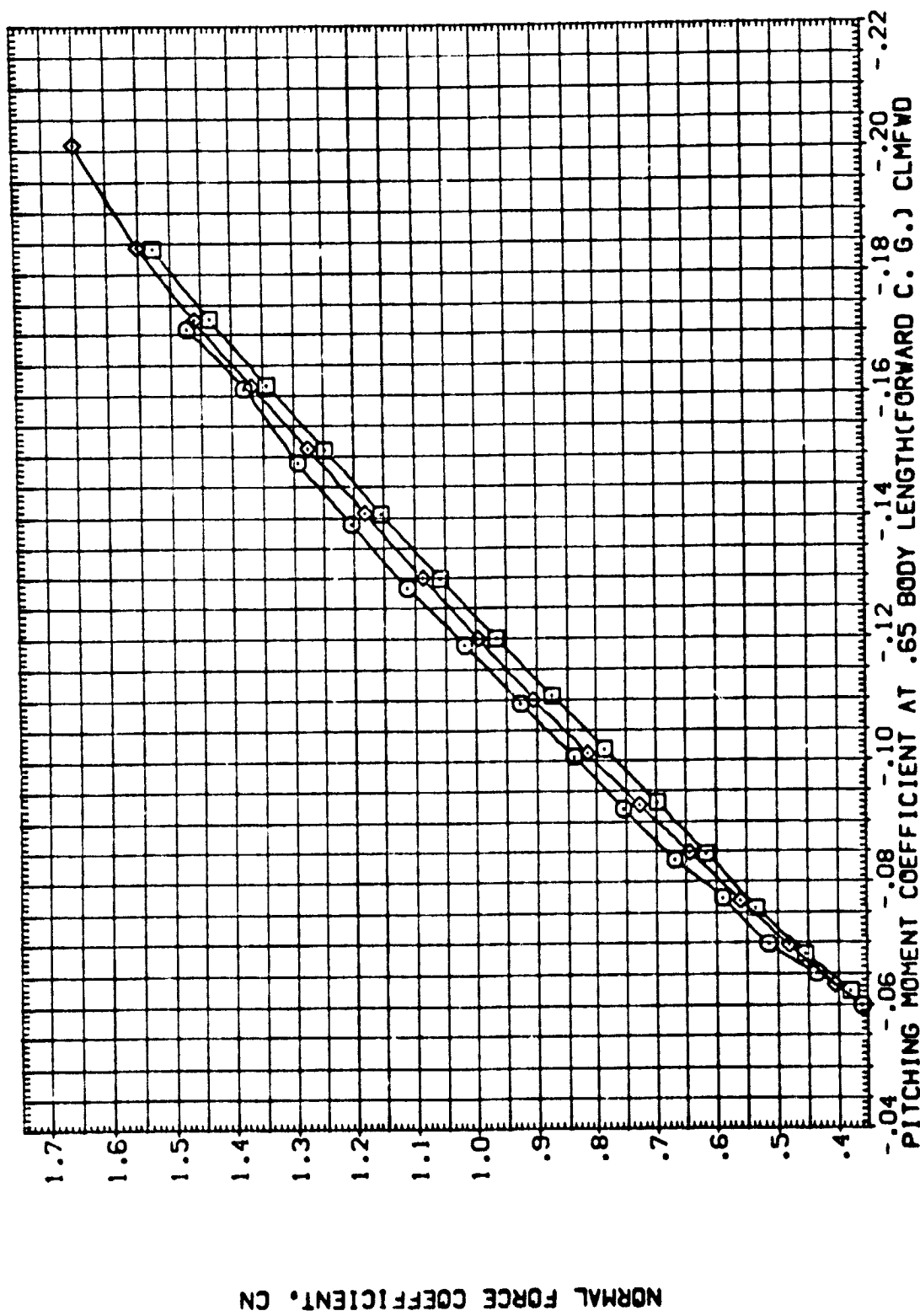


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 0)

DATA SET SYMBOL

1020A13  
1250A13  
130A13

1020A13  
1250A13  
130A13

1020A13  
1250A13  
130A13

CONFIGURATION DESCRIPTION	DATE	BY	REVISION
1. Initial Configuration	10/10/2023	J. Smith	1.0
2. Updated Configuration	11/15/2023	J. Smith	2.0
3. Revised Configuration	12/01/2023	J. Smith	3.0
4. Final Configuration	12/15/2023	J. Smith	4.0

0A79	826	C9	E43	F8	M16	N28	RS	V8	V16
0A79	826	C9	E43	F8	M16	N28	RS	V8	V16
0A79	826	C9	E43	F8	M16	N28	RS	V8	V16

0A79	826	C9	E43	F8	M16	N28	RS	V8	V16
0A79	826	C9	E43	F8	M16	N28	RS	V8	V16
0A79	826	C9	E43	F8	M16	N28	RS	V8	V16

0A79	826	C9	E43	F8	M16	N28	RS	V8	V16
0A79	826	C9	E43	F8	M16	N28	RS	V8	V16
0A79	826	C9	E43	F8	M16	N28	RS	V8	V16

PAUL  
1.500  
1.860  
3.530

PAUL  
1.500  
1.860  
3.530

PAUL  
1.500  
1.860  
3.530

PAUL  
1.500  
1.860  
3.530

805749

805749

805749

0471506

07-10

07-10

07-10

07-10

17-873

17-A73

17-A73

17-A73

## REFERENCE INFORMATION

SREF	2690.0000	50.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XRRP	1076.6900	IN.X0
YRRP	0.0000	IN.Y0
ZRRP	375.0000	IN.Z0
SCALE	.0150	

SREF	2690.0000	50.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XRRP	1076.6900	IN.X0
YRRP	0.0000	IN.Y0
ZRRP	375.0000	IN.Z0
SCALE	.0150	

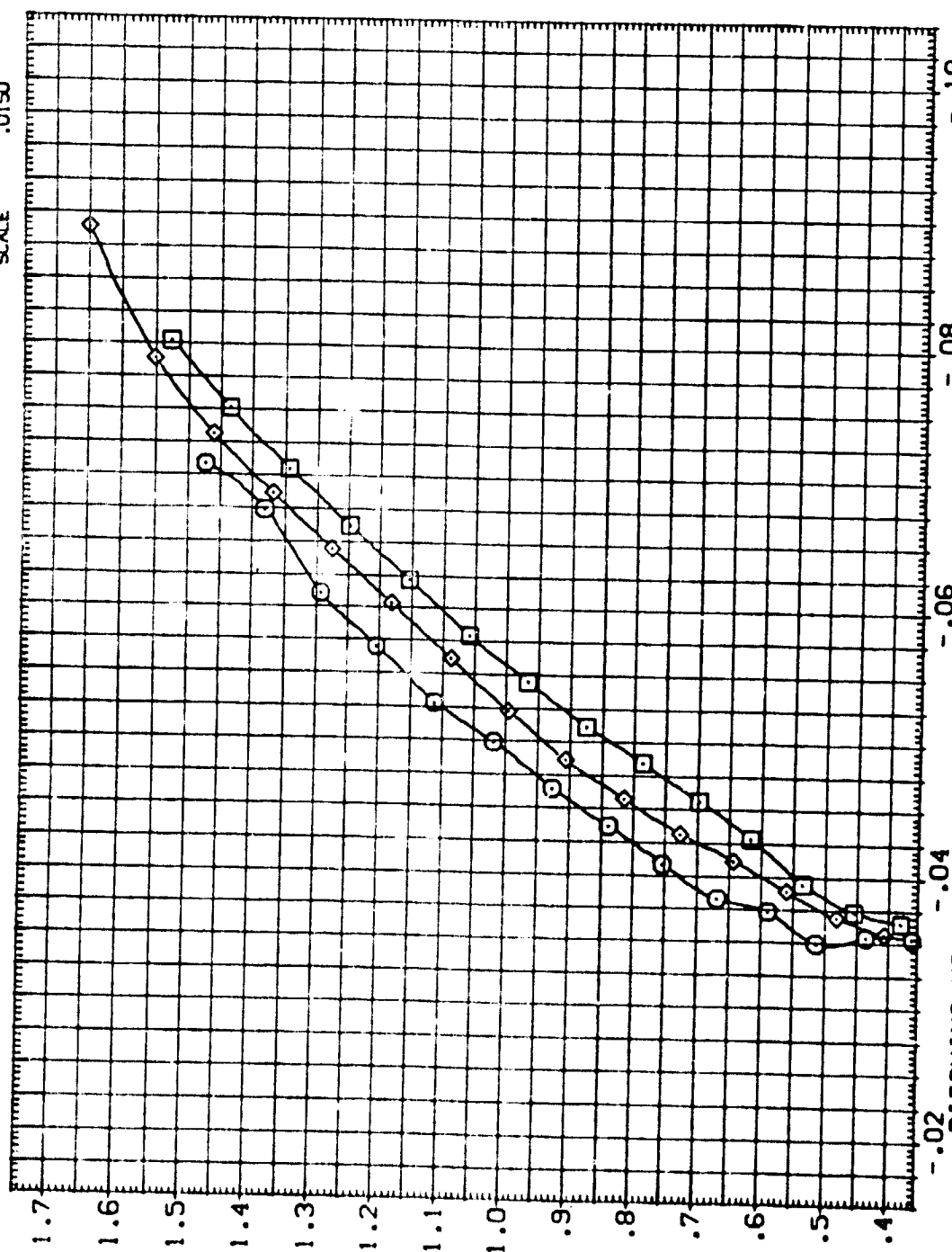
SREF	2690.0000	50.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XRRP	1076.6900	IN.X0
YRRP	0.0000	IN.Y0
ZRRP	375.0000	IN.Z0
SCALE	.0150	

SREF	2690.0000	50.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XRRP	1076.6900	IN.X0
YRRP	0.0000	IN.Y0
ZRRP	375.0000	IN.Z0
SCALE	.0150	

SREF	2690.0000	50.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XRRP	1076.6900	IN.X0
YRRP	0.0000	IN.Y0
ZRRP	375.0000	IN.Z0
SCALE	.0150	

SREF	2690.0000	50.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XRRP	1076.6900	IN.X0
YRRP	0.0000	IN.Y0
ZRRP	375.0000	IN.Z0
SCALE	.0150	

SREF	2690.0000	50.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XRRP	1076.6900	IN.X0
YRRP	0.0000	IN.Y0
ZRRP	375.0000	IN.Z0
SCALE	.0150	



Reynolds Number (approx.)	Pitching Moment Coefficient (approx.)
0	-0.025
10,000	-0.080
20,000	-0.085
40,000	-0.088
60,000	-0.090
80,000	-0.090
100,000	-0.090

**(A)MACH = 7.90**

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BDFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV051)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	20.000	20.000	SREF 2690.0000 50.FT.
(CTV052)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	.000	20.000	20.000	LREF 474.8100 IN.
(CTV020)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	20.000	20.000	BREF 936.6800 IN.X0
						YMRP 1076.0000 IN.Y0
						ZMRP 375.0000 IN.Z0
						SCALE .0150

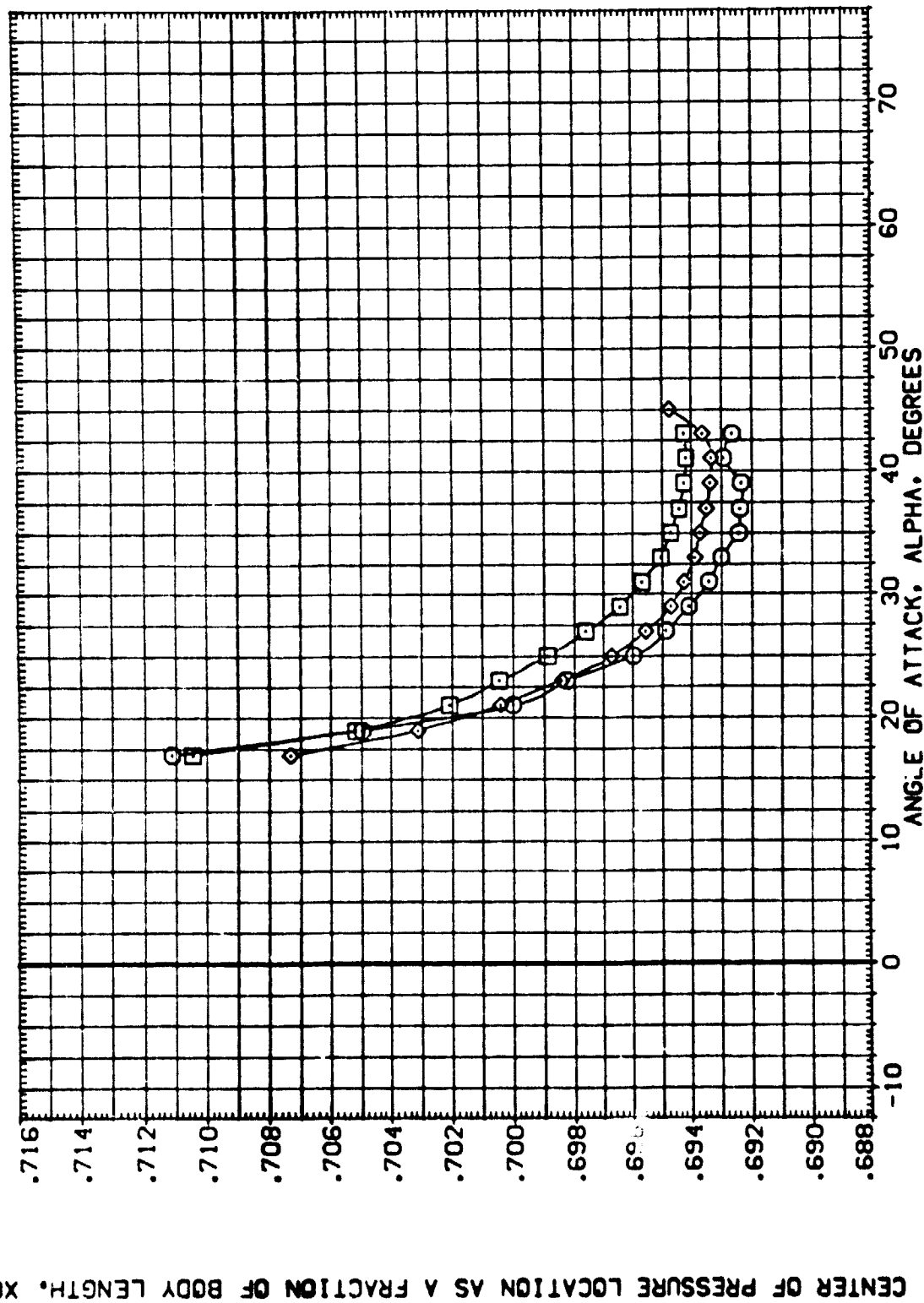


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP= 0)

(A)MACH = 7.90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BDLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV051)	DAY8 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	20.000	20.000	SREF 2690.0000 SQ.FT.
(CTV052)	DAY9 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	.000	20.000	20.000	LREF 474.8100 IN.
(CTV020)	DAY9 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	20.000	20.000	BREF 536.6800 IN.
						XREF 1076.0000 IN.
						YREF .0000 IN.
						ZREF .0000 IN.
						SCALE .0150

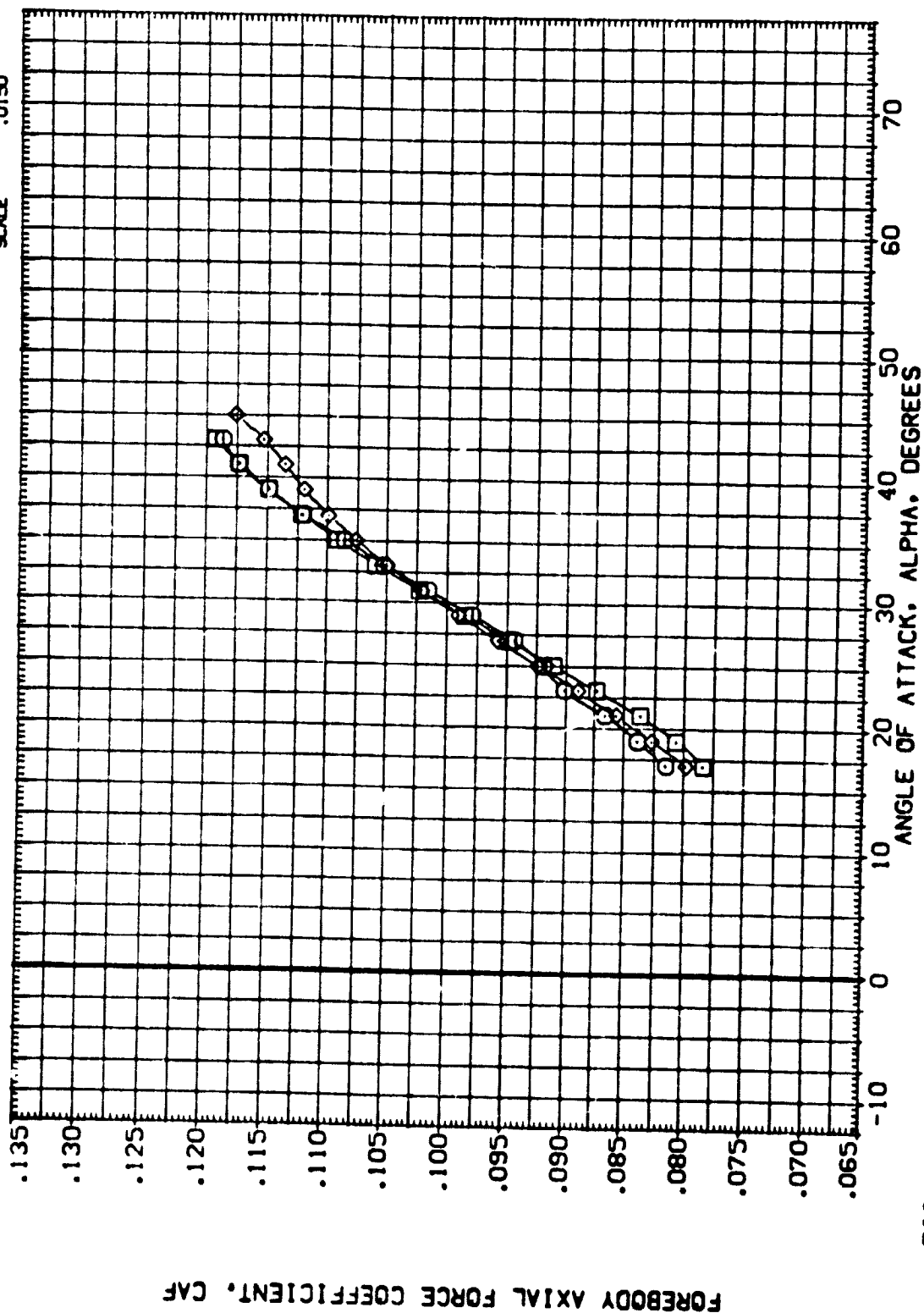


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL  
(CIV051)  
(CIV052)  
(CIV020)

CONFIGURATION DESCRIPTION  
0A79 B26 C3 E43 F8 M16 N28 R5 V8 V116  
0A79 B26 C3 E43 F8 M16 N28 R5 V8 V116  
0A79 B26 C3 E43 F8 M16 N28 R5 V8 V116

RVL  
.500  
1.860  
3.530

BD FLAP  
.000  
.000  
.000

ELV-L0  
20.000  
20.000  
20.000

ELV-L1  
20.000  
20.000  
20.000

REFERENCE INFORMATION  
SREF 2690.0000 SQ.FT.  
LREF 474.8100 IN.  
BREF 506.6800 IN.X0  
XREF 1076.0000 IN.Y0  
YREF 375.0000 IN.Z0  
SCALE .0150

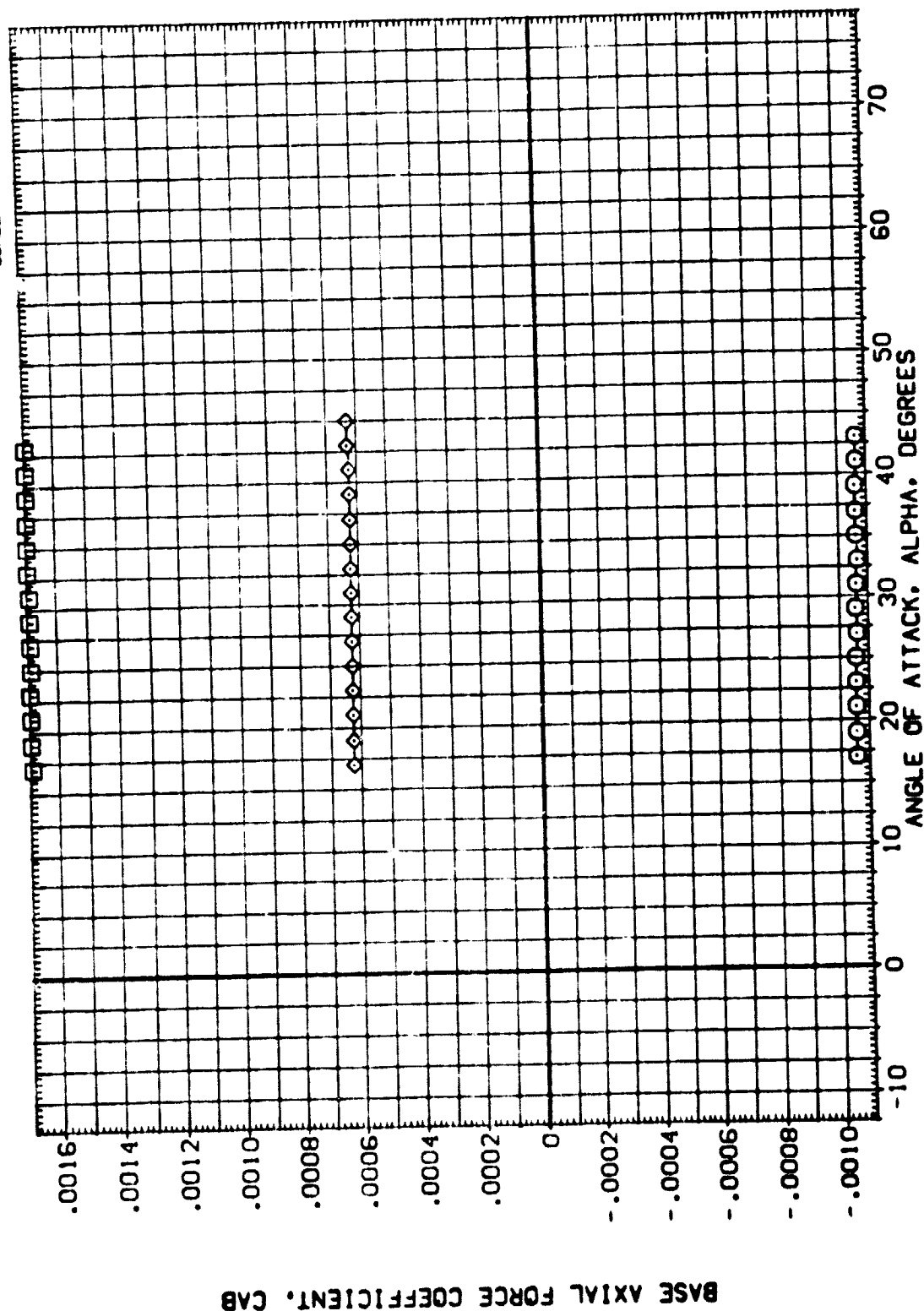


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP= 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AN/L	BD/FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1V051)	0A79 B06 C9 E43 F8 M16 N08 R5 V8 V116	.500	.000	20.000	20.000	SREF 2690.0000 SQ.FT.
(C1V052)	0A79 B06 C9 E43 F8 M16 N08 R5 V8 V116	1.860	.000	20.000	20.000	LREF 474.8100 IN.
(C1V020)	0A79 B26 C9 E43 F8 M16 N08 R5 V8 V116	3.530	.000	20.000	20.000	BREF 936.6800 IN.X0
						XREF 1076.6800 IN.X0
						YREF 375.0000 IN.Y0
						ZREF 375.0000 IN.Y0
						SCALE .0150

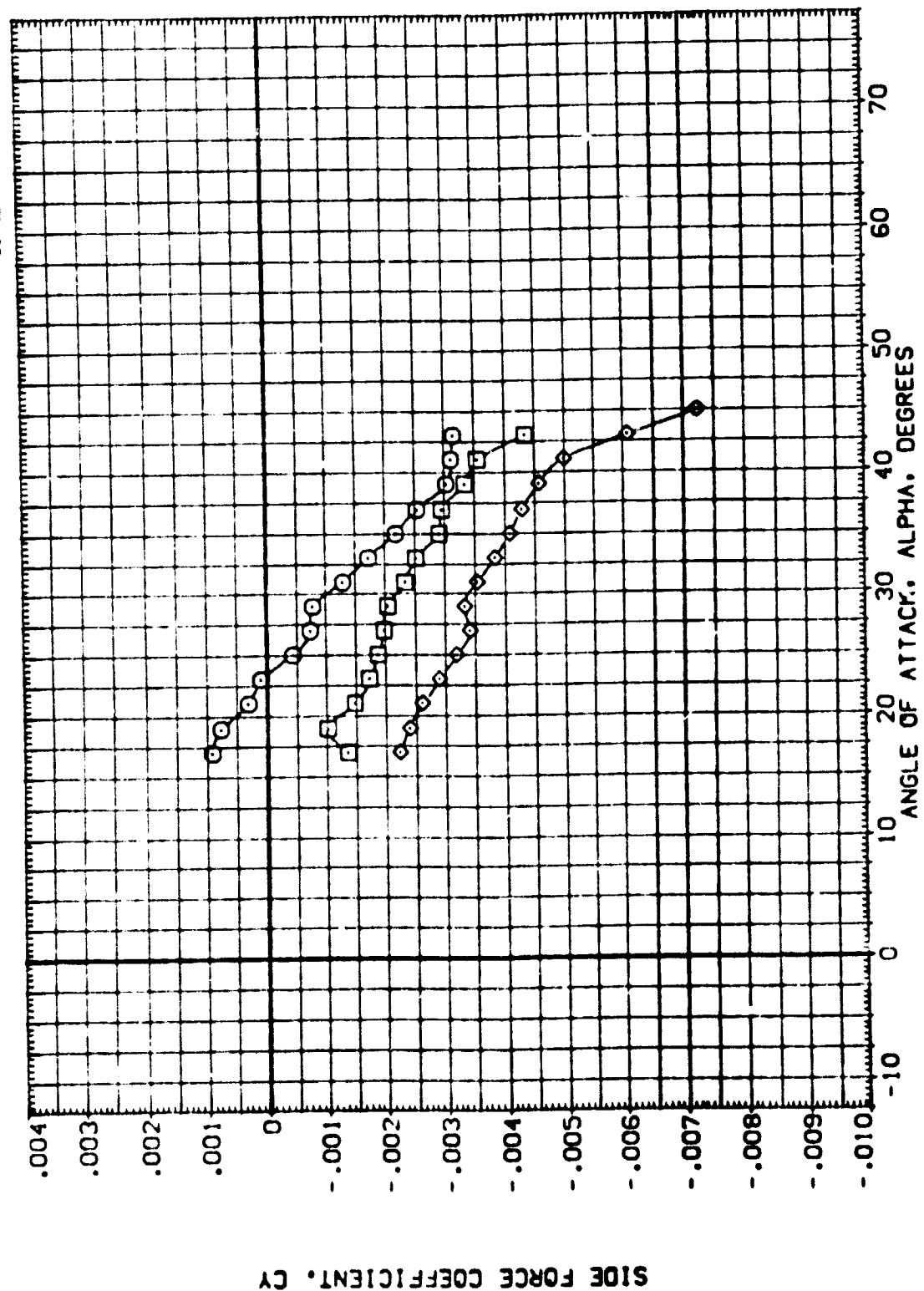


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 0)

(A)MACH = 7.90



DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(ATV051)    0A79 B26 C9 E43 F8 M16 N28 R5 V8 VII6

(ATV052)    0A79 B26 C9 E43 F8 M16 N28 R5 V8 VII6

(ATV020)    0A79 B26 C9 E43 F8 M16 N28 R5 V8 VII6

RMVL    500  
1,860  
3,530

BOFLAP    .000  
.000  
.000

ELV-L0    20,000  
20,000  
20,000

ELV-L1    20,000  
20,000  
20,000

REFERENCE INFORMATION

SREF    2690.0000    50.FT.

LREF    474.8100    IN.

BREF    906.6300    IN. X0

YPRP    1076.6300    IN. Y0

ZPRP    375.0000    IN. Y0

SCALE    .0150

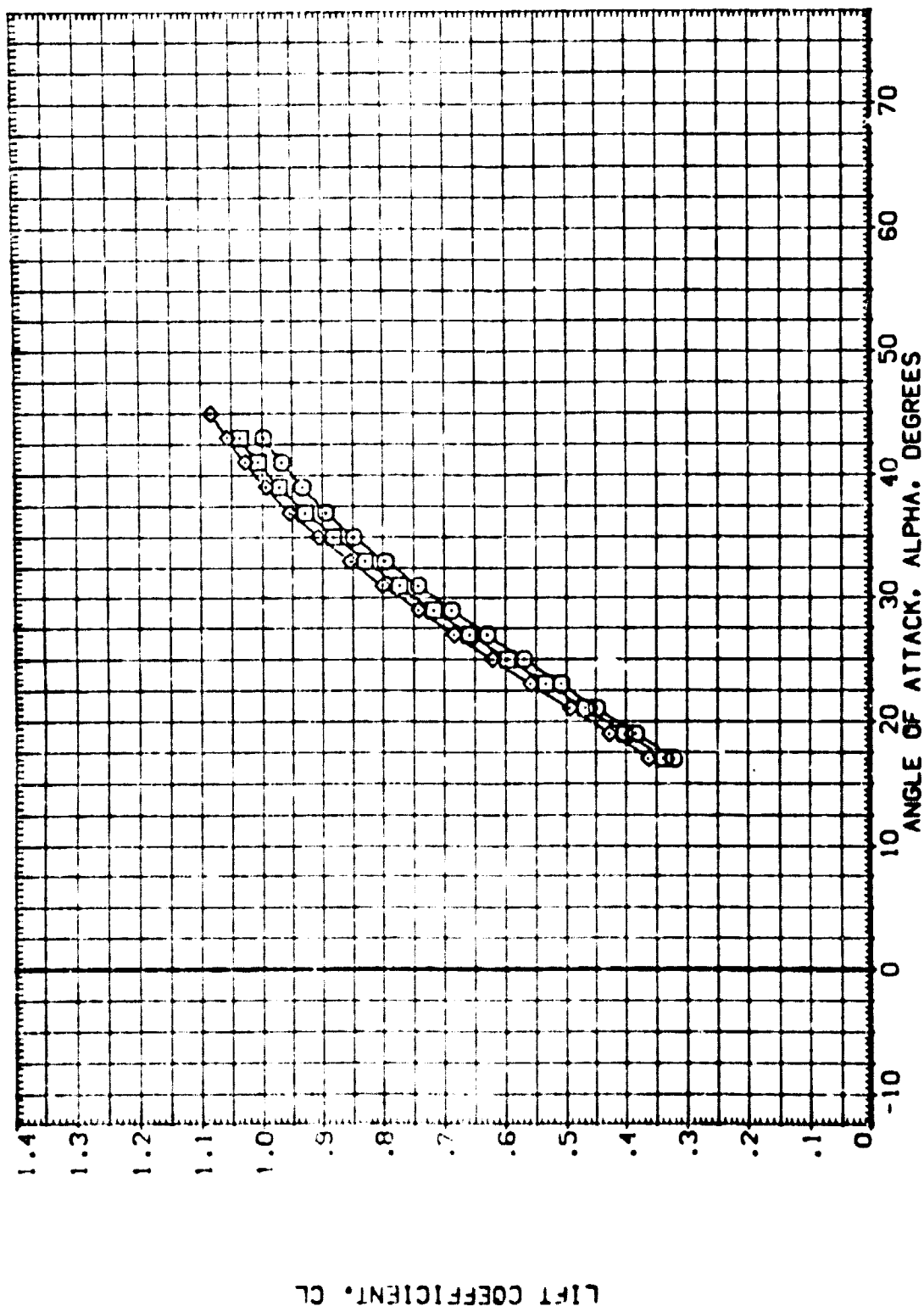


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP= 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BDFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(A) V0511	0A79 B26 C9 E43 F8 M16 N08 R5 V8 V116	.500	.000	20.000	20.000	SREF 2690.0000 SQ.FT.
(A) V0512	0A79 B26 C9 E43 F8 M16 N08 R5 V8 V116	1.860	.000	20.000	20.000	LREF 474.8100 IN.
(A) V0520	0A79 B26 C9 E43 F8 M16 N08 R5 V8 V116	3.530	.000	20.000	20.000	BREF 936.6800 IN.
						XREF 1076.6300 IN.
						YREF .0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

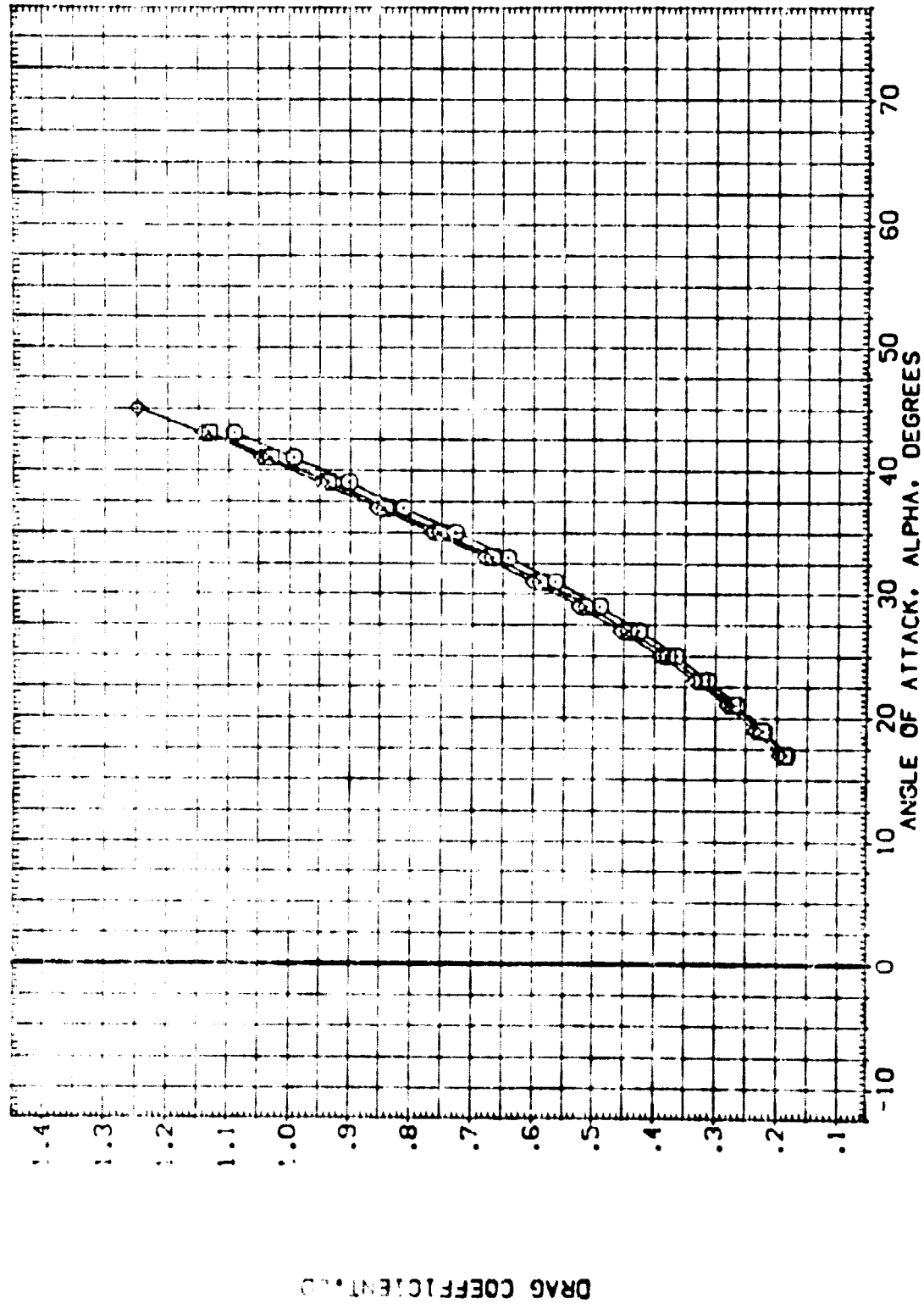


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP= 0)

(A)MACH = 7.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ATV051)  DATA B06 C9 E43 FB M16 N08 R5 V8 M116  
 (ATV052)  DATA B06 C9 E43 FB M16 N08 R5 V8 M116  
 (ATV053)  DATA B06 C9 E43 FB M16 N08 R5 V8 M116

RVL COLAP ELV-L0 ELV-L1  
 .500 .000 20.000 20.000  
 1.360 .000 20.000 20.000  
 3.530 .000 20.000 20.000

REFERENCE INFORMATION  
 SREF 2690.0000 50.00 FT.  
 LREF 474.8100 IN.  
 BREF 936.5800 IN.  
 XREF 1078.5800 IN.  
 YREF 1000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

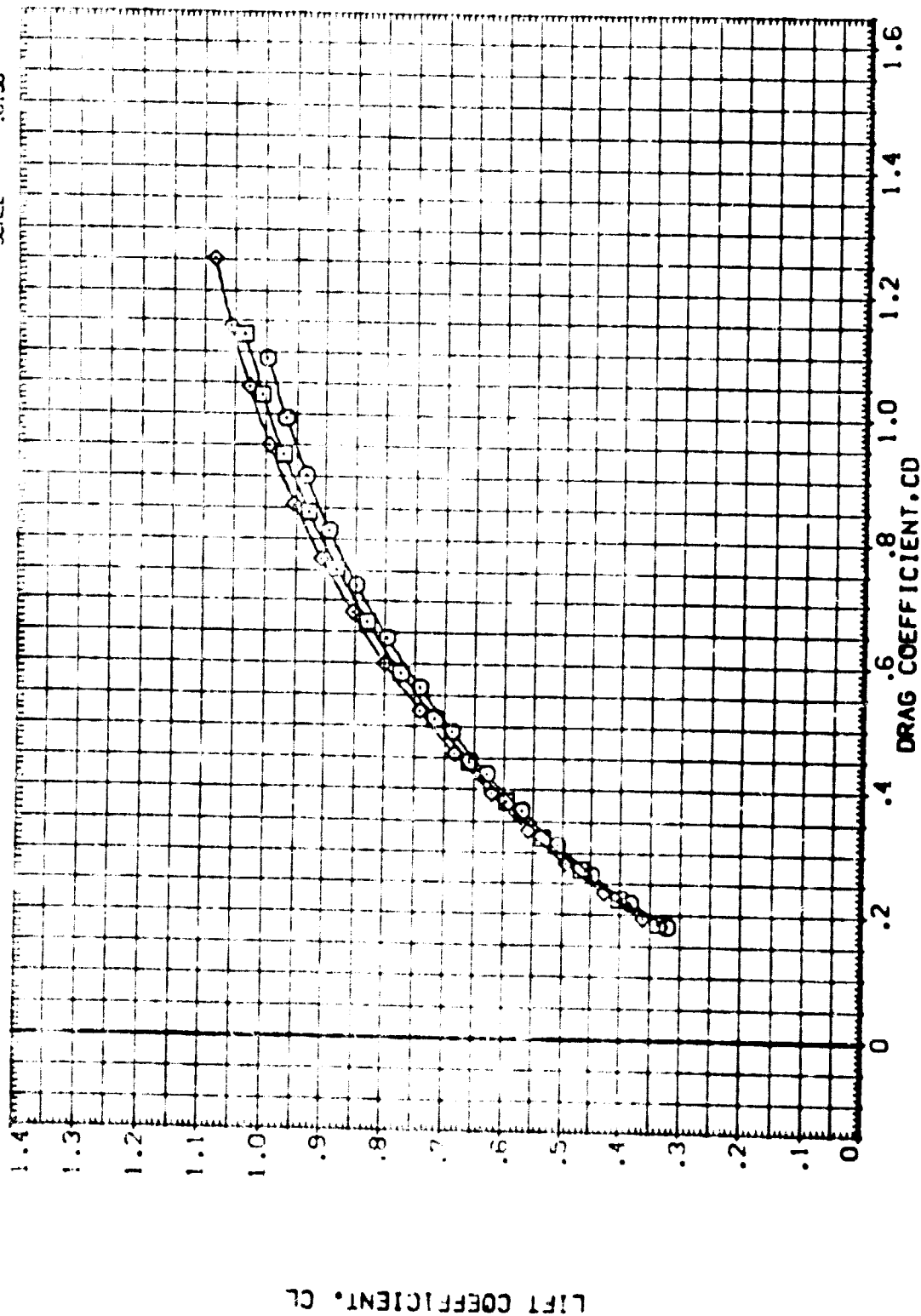


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 0)

(MACH = 0.790)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(ATV0611)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	20.000	20.000	SREF 2630.0000 SQ.FT.
(ATV052)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.862	.000	20.000	20.000	LREF 474.8100 IN.
(ATV020)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	20.000	20.000	BREF 936.6600 IN.
						XTREF 1076.6800 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

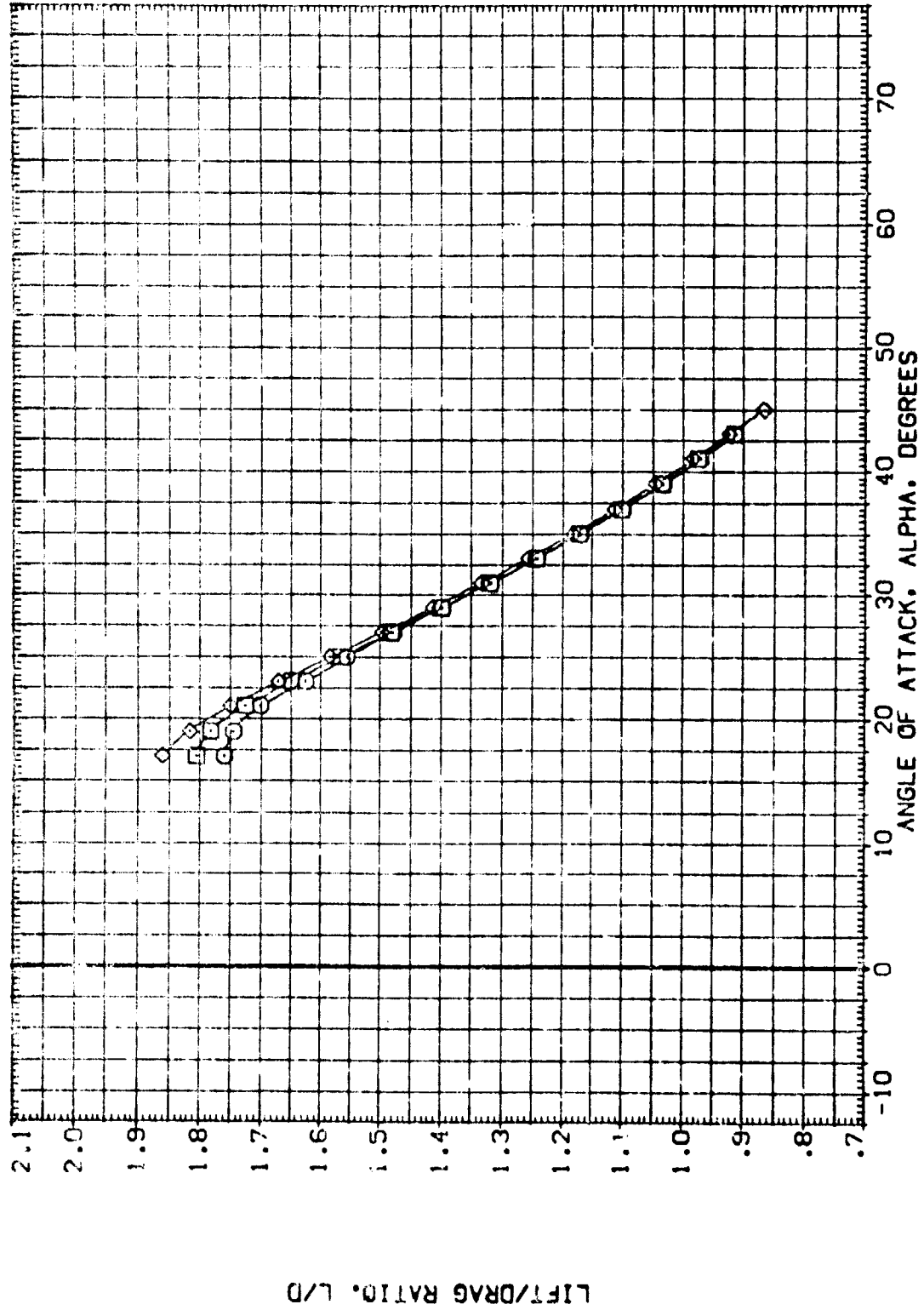


FIG. 25 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP= 0)

(A)MACH = 7.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    REFERENCE INFORMATION

(C1V062)	QAT8 B26 C9 E43 F8 H16 N28 R5 V8 V116	SREF 2690.0000 50.FT.
(C1V054)	QAT8 B26 C9 E43 F8 H16 N28 R5 V8 V116	LREF 474.8100 IN.
(C1V025)	QAT8 B26 C9 E43 F8 H16 N28 R5 V8 V116	SREF 936.6900 IN. X0
		XREF 1076.6900 IN. X0
		YREF 375.0000 IN. Z0
		ZREF .0150

SNAL    DELAP    ELV-L0    ELV-L1

.500	.000	-40.000	-40.000
1.860	.000	-40.000	-40.000
3.530	.000	-40.000	-40.000

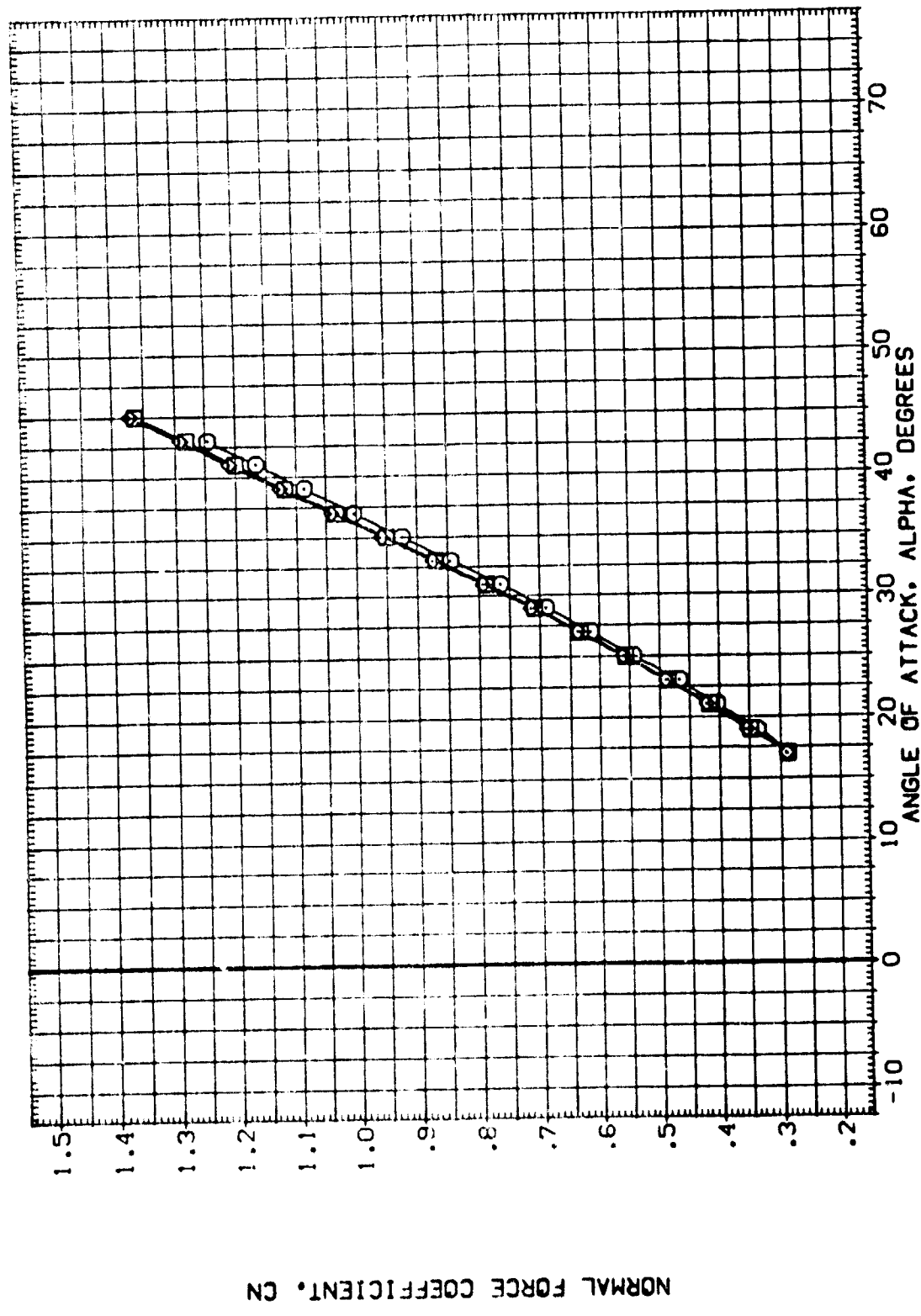


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      RV/L      BC FLAP      ELV-L0      ELV-L1      REFERENCE INFORMATION

(C1062)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	-40.000	-40.000	SREF 2690.0000 50.FT.
(C1054)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	.000	-40.000	-40.000	LREF 474.8100 IN.
(C1025)	0A79 5.5 C9 E43 F9 M16 N28 R5 V8 V116	3.530	.000	-40.000	-40.000	BREF 936.0900 IN.
						XTRP 1076.0000 IN.X0
						YTRP .0000 IN.Y0
						ZTRP 375.0000 IN.Z0
						SCALE .0150

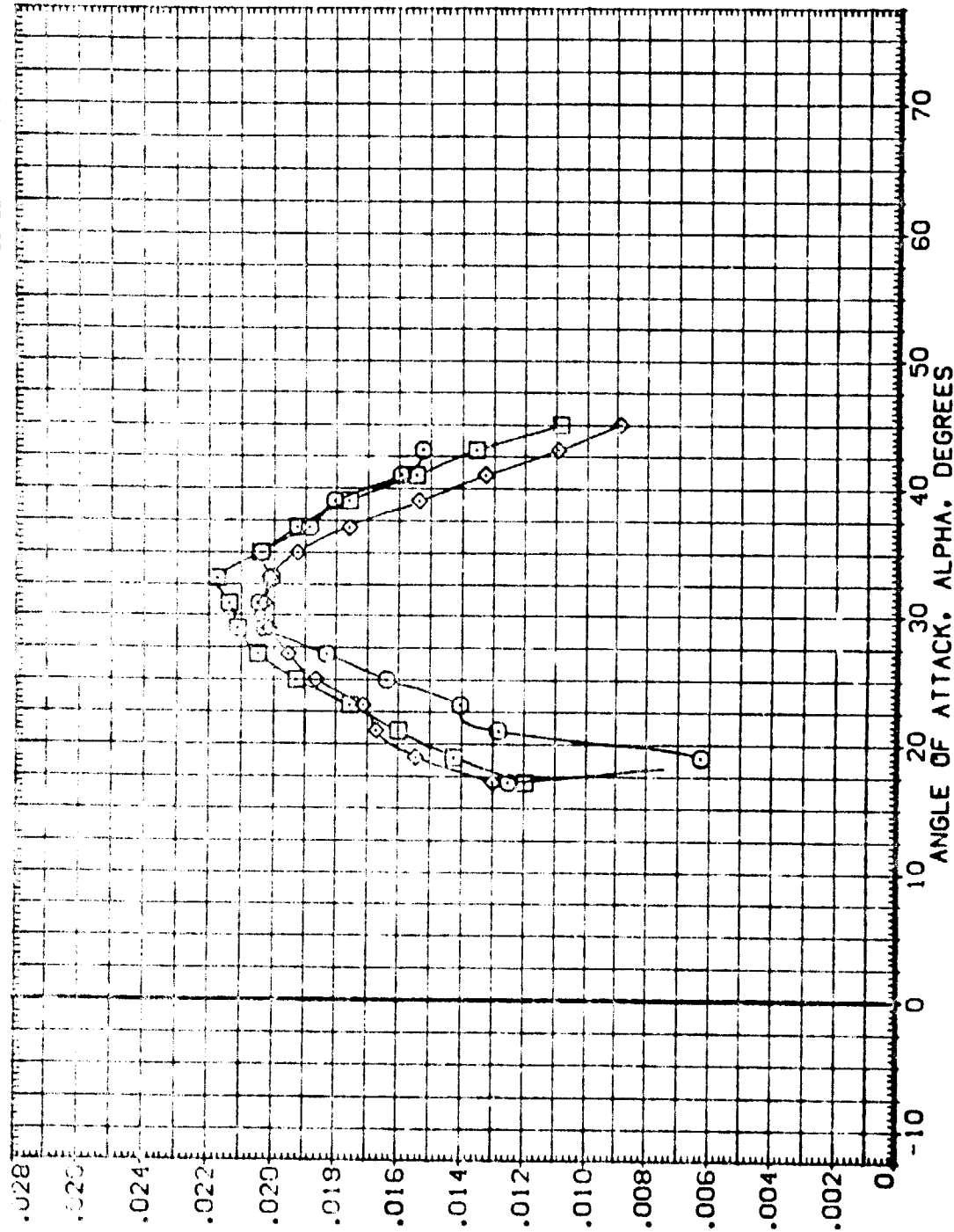


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CTV052) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116  
 (CTV053) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116  
 (CTV055) 0A79 B26 C9 E43 F8 M16 N28 RS V8 V116

PSVL 000 000 000 000  
 1.500 1.850 3.530  
 000 000 000 000  
 000 000 000 000  
 000 000 000 000

REFERENCE INFORMATION  
 SREF 2690.0000 50.000  
 LREF 474.8100 10.000  
 BREF 936.6800 10.000  
 XREF 1078.6800 10.000  
 YREF 375.0000 10.000  
 ZREF 0.0150 10.000  
 SCALE 0.0150

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH (C<sub>g</sub>) CLMPT

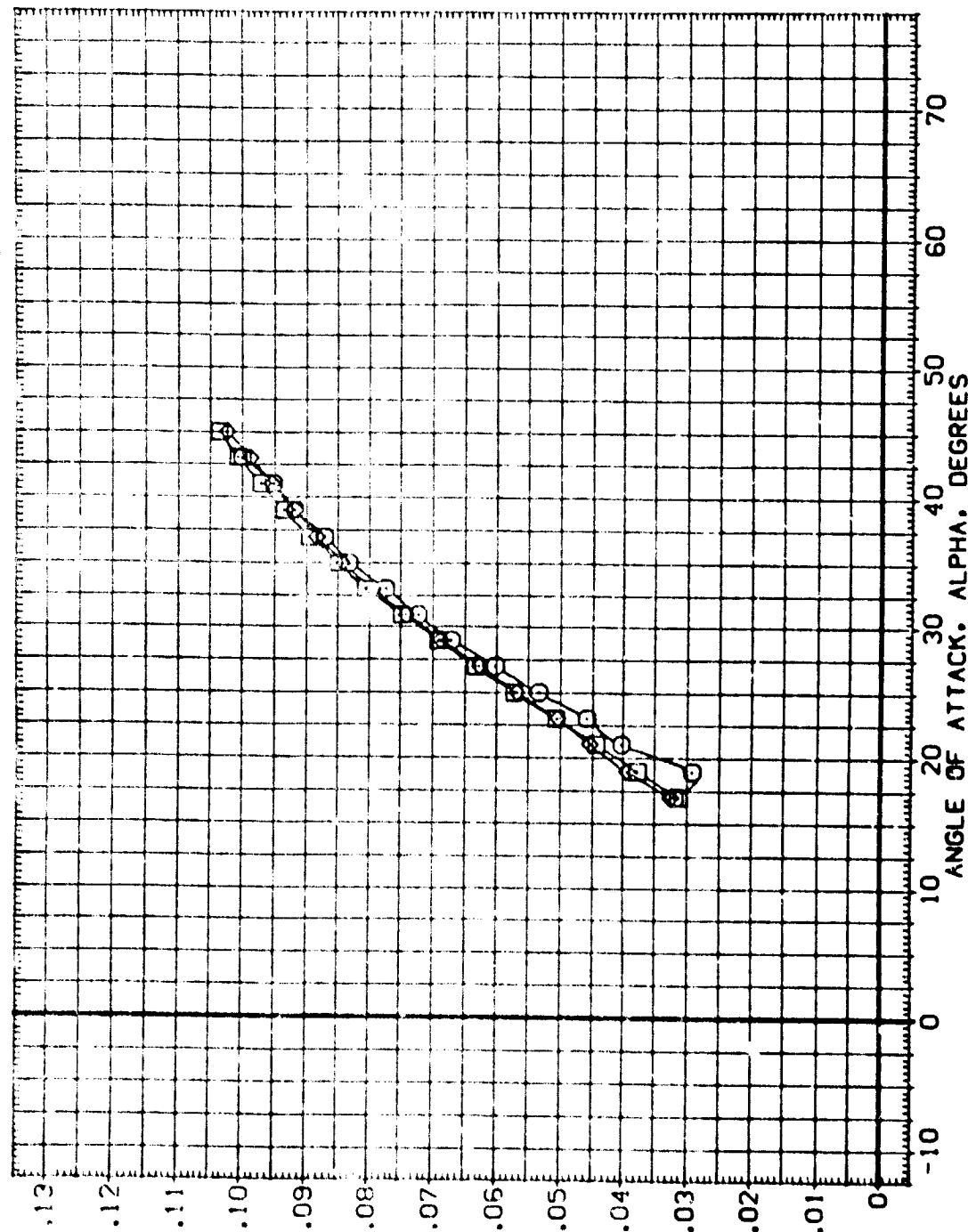


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

(MACH = 7.90)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	REFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CIV052)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	-40.000	-40.000	SREF 2690.0000 SQ.FT.
(CIV054)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	.000	-40.000	-40.000	LREF 474.8100 IN.
(CIV055)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	-40.000	-40.000	BREF 936.6800 IN.
						XREF 1076.6800 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Y0
						SCALE .0150

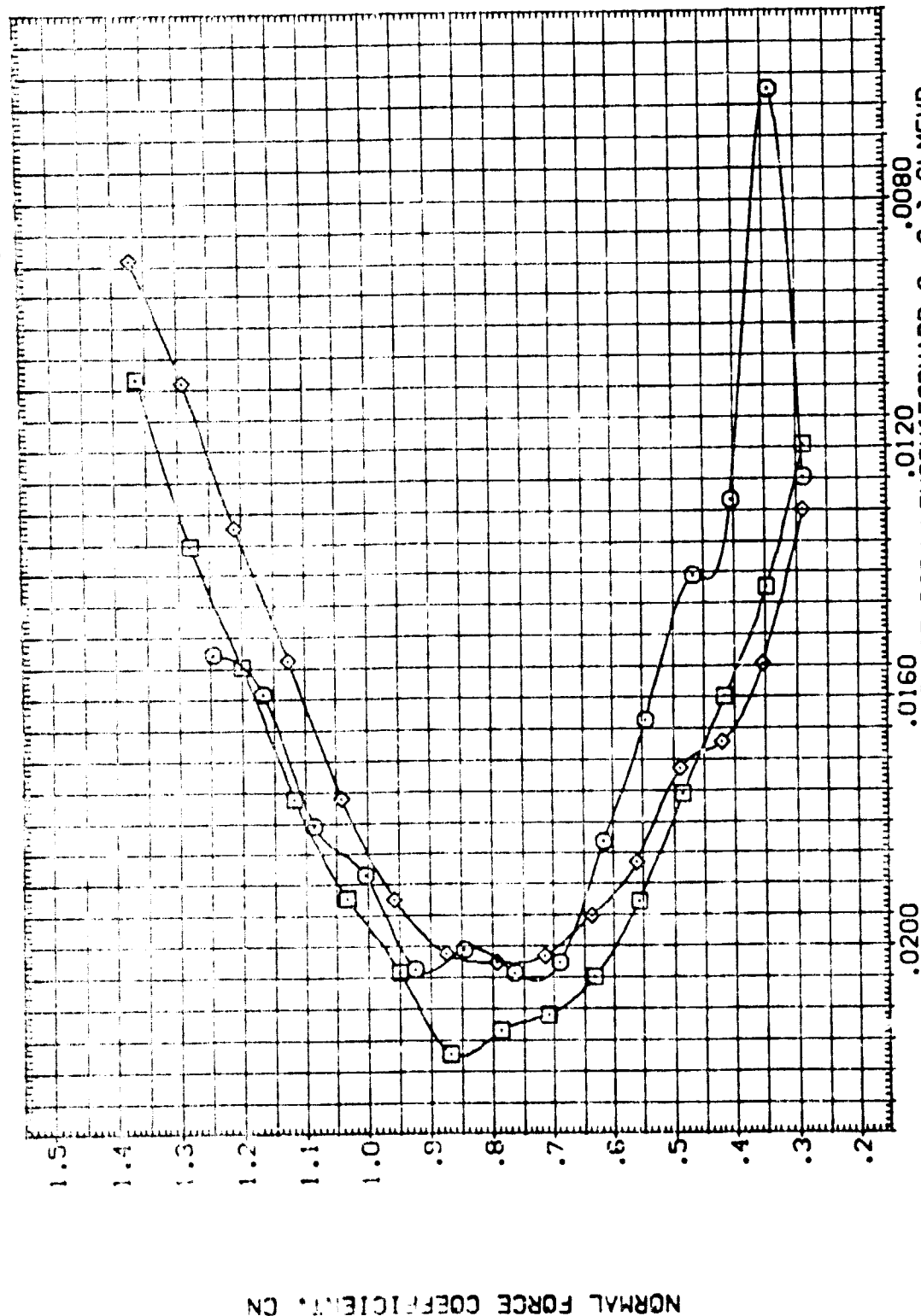


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)



DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CTV032)    □    OA79 B26 C9 E43 F8 M15 N28 RS V8 V116  
 (CTV054)    ○    OA79 B26 C9 E43 F8 M15 N28 RS V8 V116  
 (CTV025)    ◇    OA79 B26 C9 E43 F8 M15 N28 RS V8 V116

RM/L    BOFLAP    ELV-L0    ELV-L1  
 .33    .000    -40.000    -40.000  
 1.860    .000    -40.000    -40.000  
 3.530    .000    -40.000    -40.000

REFERENCE INFORMATION  
 SREF    2690.0000    50. FT.  
 LREF    474.8100    IN.  
 SREF    936.6800    IN.  
 XPRP    1076.6800    IN. X0  
 YPRP    .0000    IN. Y0  
 ZPRP    375.0000    IN. Z0  
 SCALE    .0150

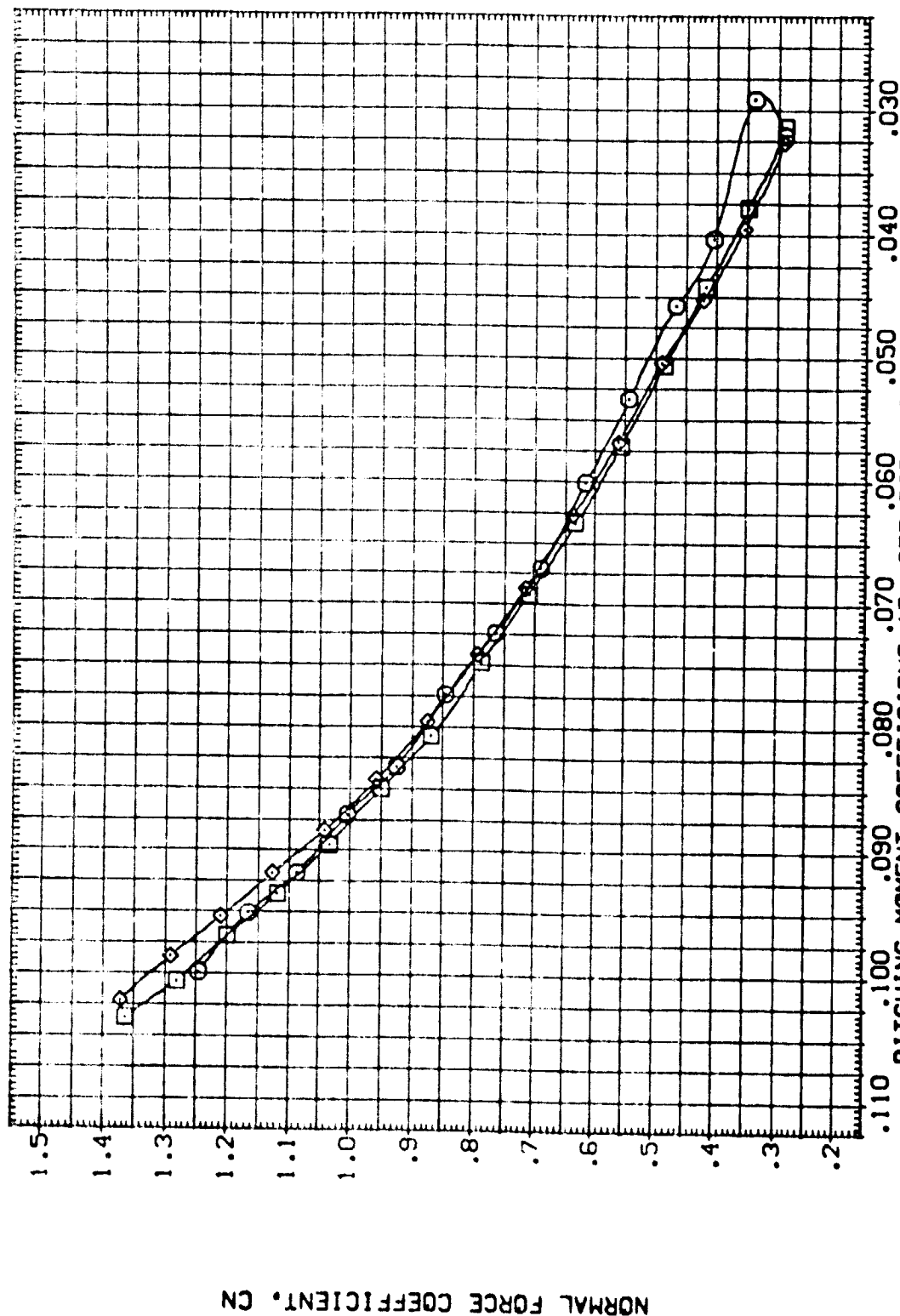


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RA/L	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1V062)	Q479 B26 C9 E43 F8 M16 N28 RS V8 V116	.500	.000	-40.000	-40.000	SREF 2690.0000 SQ.FT.
(C1V064)	Q479 B26 C9 E43 F8 M16 N28 RS V8 V116	1.260	.000	-40.000	-40.000	LREF 474.8100 IN.
(C1V075)	Q479 B26 C9 E43 F8 M16 N28 RS V8 V116	3.530	.000	-40.000	-40.000	BREF 936.6800 IN.
						XREF 1076.6800 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

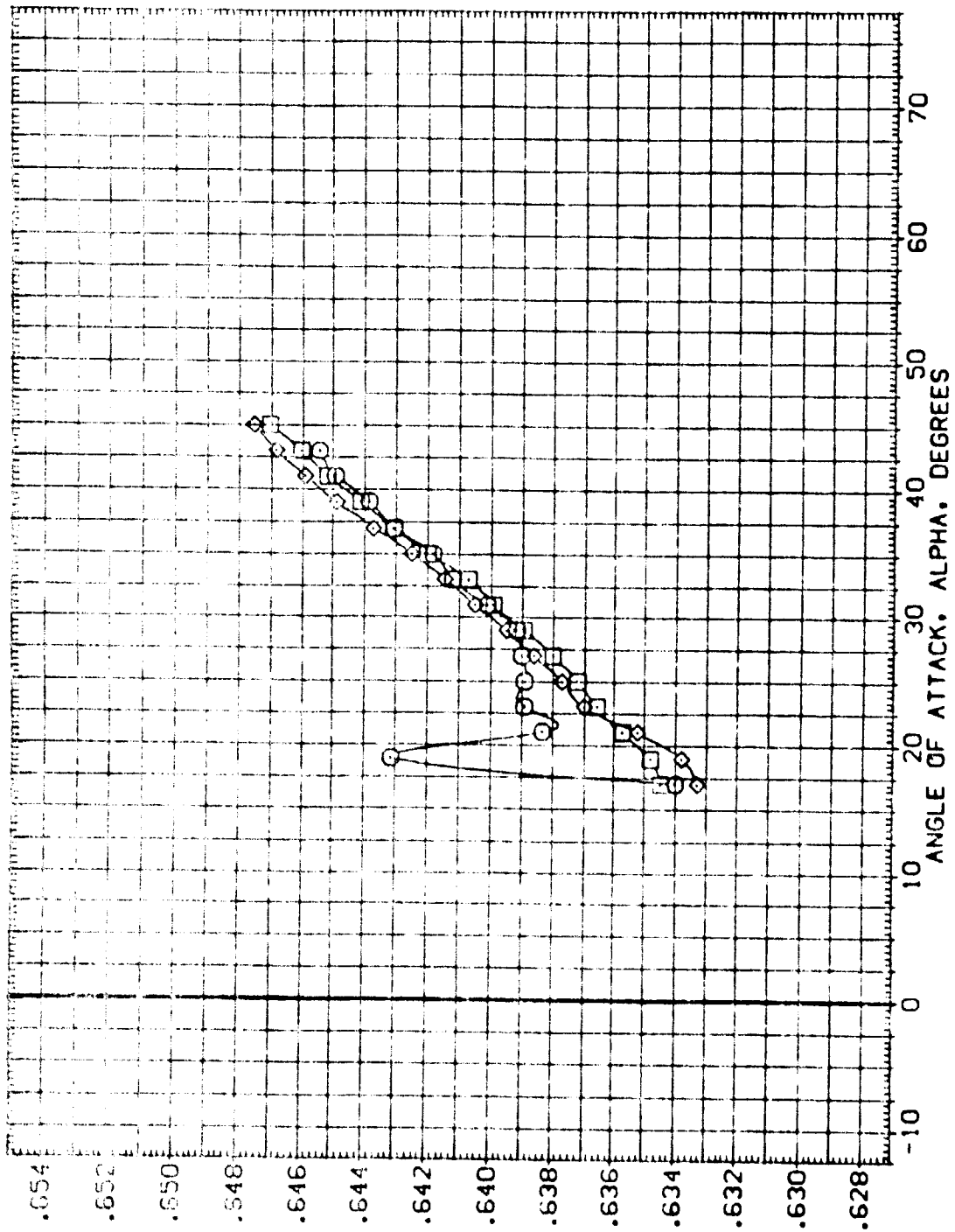


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

(A)MACH = 7.90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BUFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV002)	8A79 B26 C9 E43 FB M16 N28 RS V8 V116	.500	.000	-40.000	-40.000	SREF 2690.0000 SQ.FT.
(CTV004)	8A79 B26 C9 E43 FB M16 N28 RS V8 V116	1.860	.000	-40.000	-40.000	LINE 474.8100 IN.
(CTV005)	8A79 B26 C9 E43 FB M16 N28 RS V8 V116	3.530	.000	-40.000	-40.000	PCRF 936.6900 IN.
						XPRP 1076.0000 IN.
						THRP 575.0000 IN.
						ZPRP 575.0000 IN.
						SCALE .0150

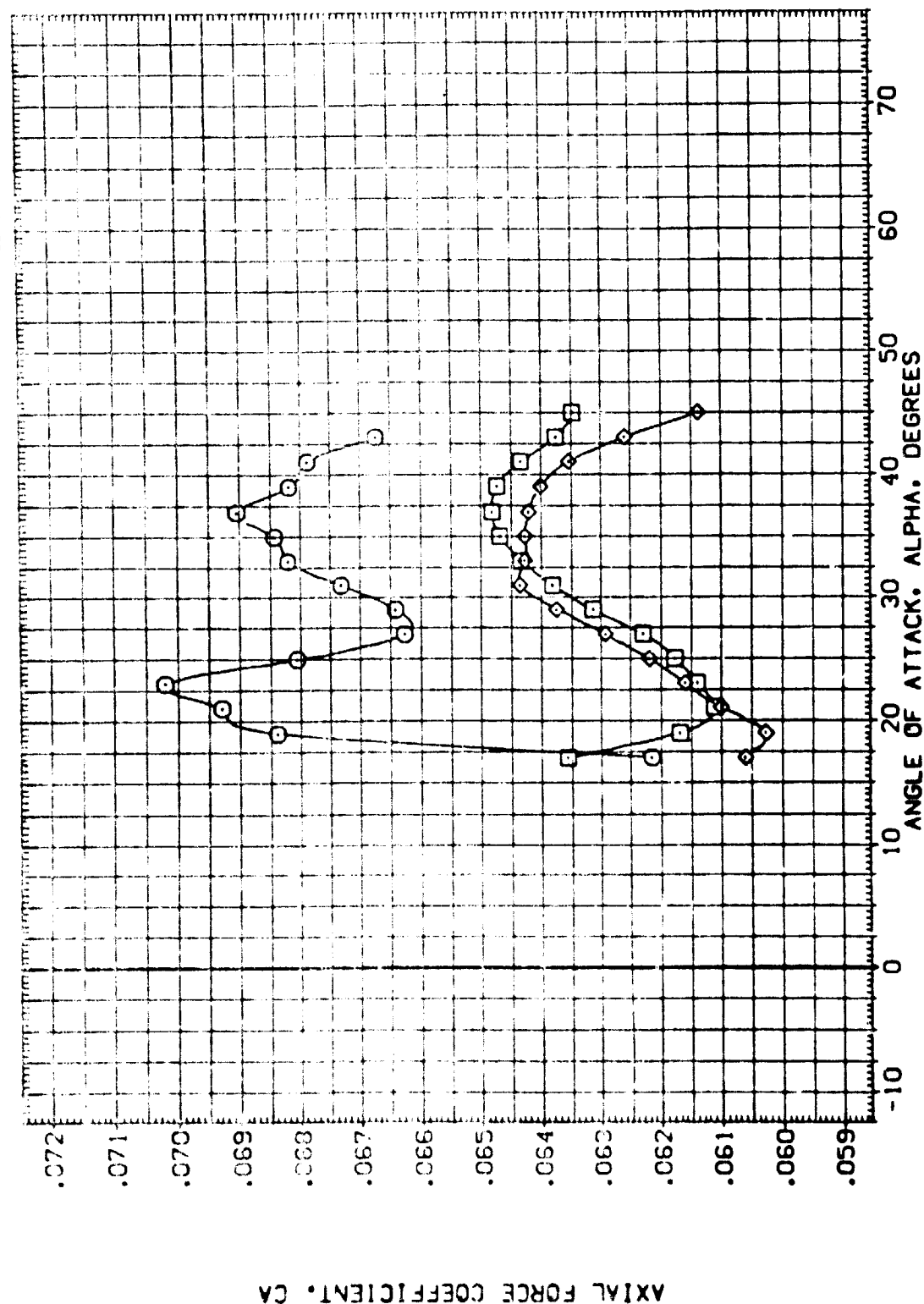


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

CA/MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1052)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	-40.000	-40.000	SREF 2690.0000 90.FT.
(C1054)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.880	.000	-40.000	-40.000	LREF 474.8100 IN.
(C1025)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	-40.000	-40.000	SREF 936.6800 IN.
						XREF 1076.6800 IN.
						YREF .0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

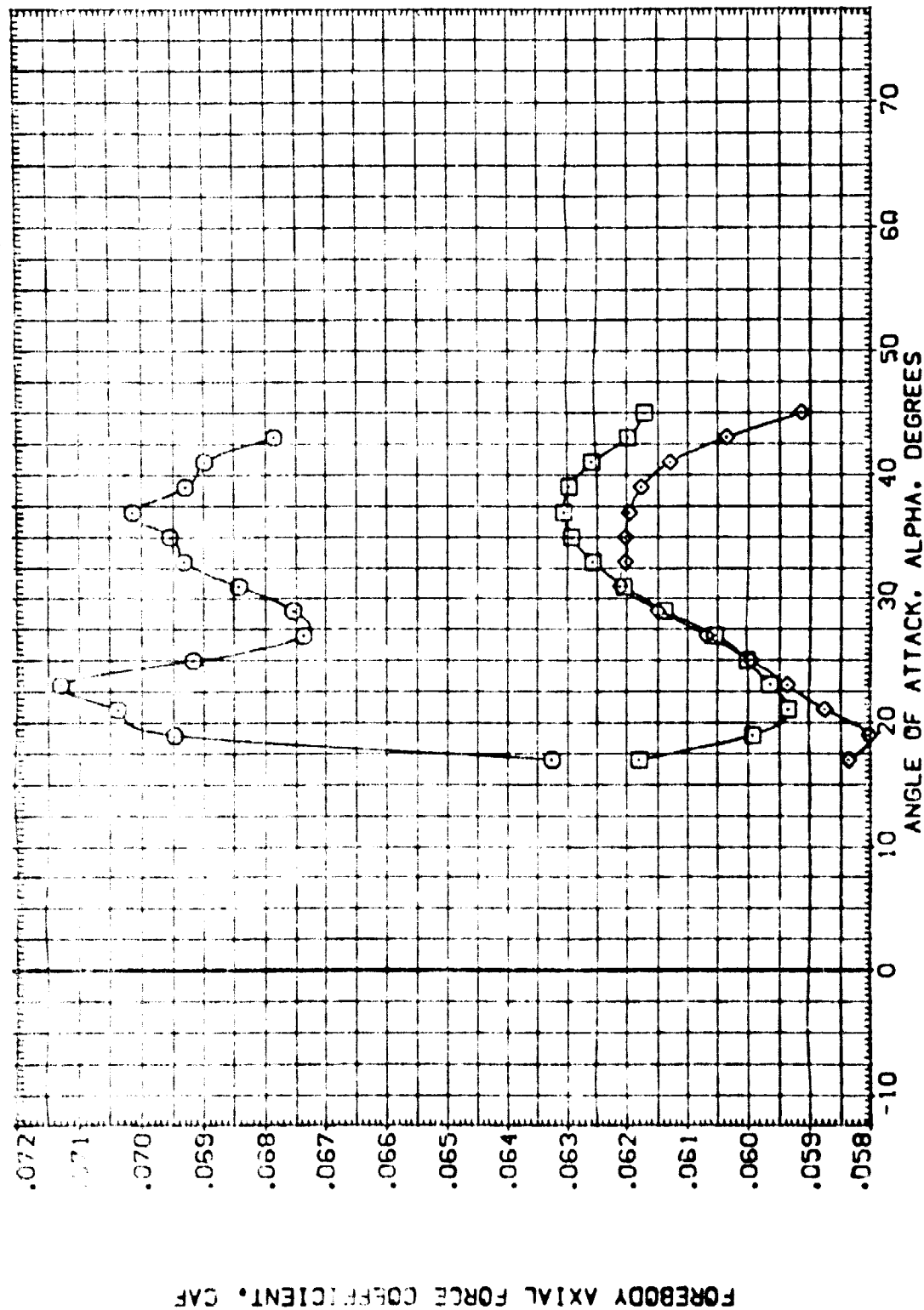


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	RV/L	BOX FLAP	ELV-L/D	ELV-U/L	REFERENCE INFORMATION
01-062	01-062	01-062	0.500	0.000	-40.000	-40.000	2690.0000 SQ.FT.
01-063	01-063	01-063	1.860	0.000	-40.000	-40.000	474.8100
01-064	01-064	01-064	3.530	0.000	-40.000	-40.000	936.6800
01-065	01-065	01-065					1775.6800
							2400
							375.0000
							SCALE

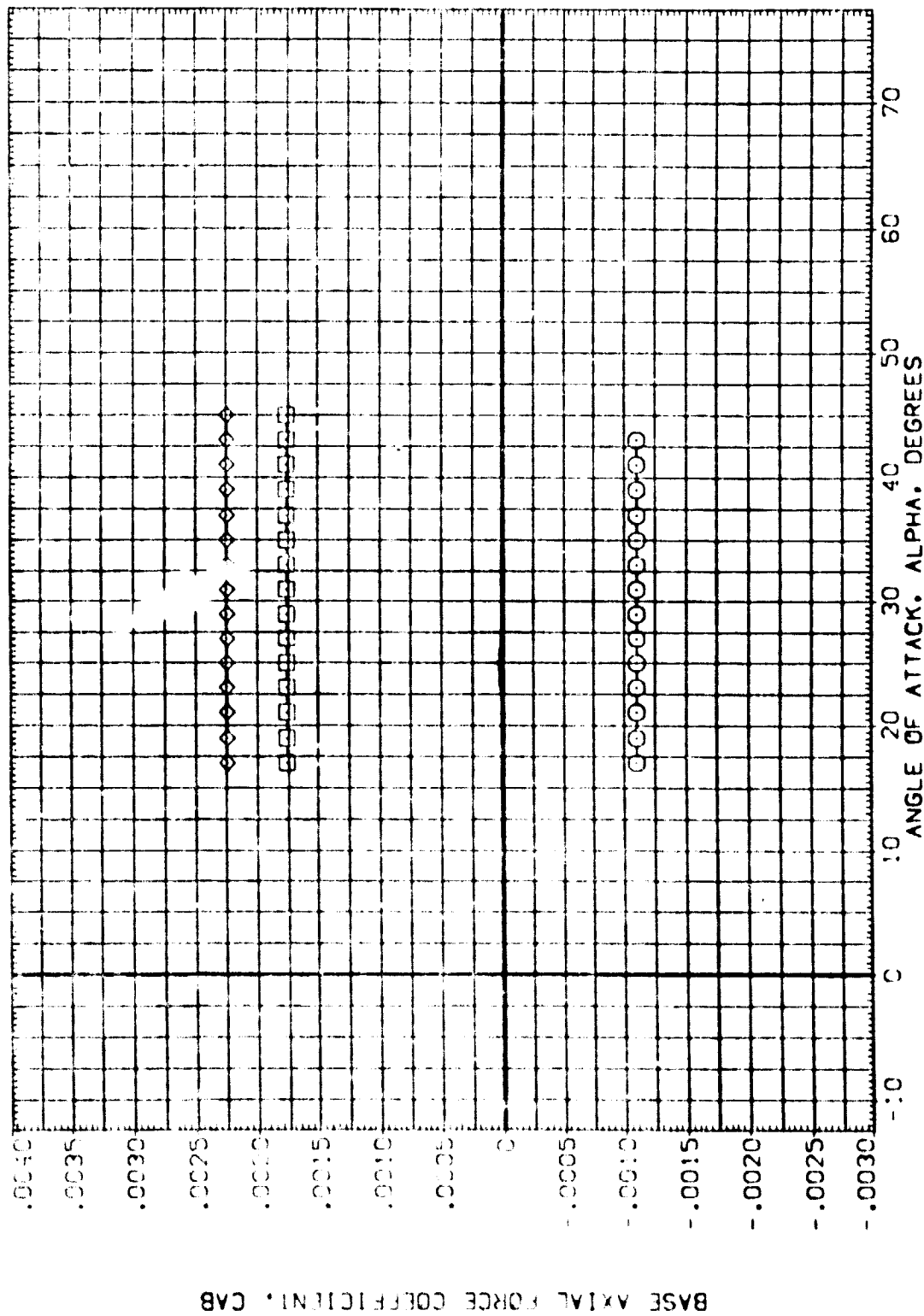


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

(M)MACH = 7.90

DATA SYMBOL CONFIGURATION DESCRIPTION  
 (01062) 1 019 908 09 843 18 116 N28 85 18 116  
 (01063) 2 019 908 09 843 18 116 N28 85 18 116  
 (01064) 3 019 908 09 843 18 116 N28 85 18 116  
 (01065) 4 019 908 09 843 18 116 N28 85 18 116

R/VL DO FLAP ELEV-10 ELEV-11  
 .500 .000 -40.000 -40.000  
 1.500 .000 -40.000 -40.000  
 3.500 .000 -40.000 -40.000

REFERENCE INFORMATION  
 SRF 2690.0000 SC.F/L  
 SRF 414.8132  
 SRF 936.8800  
 SRF 1016.0000  
 SRF 3175.0000  
 SCALE 10.150

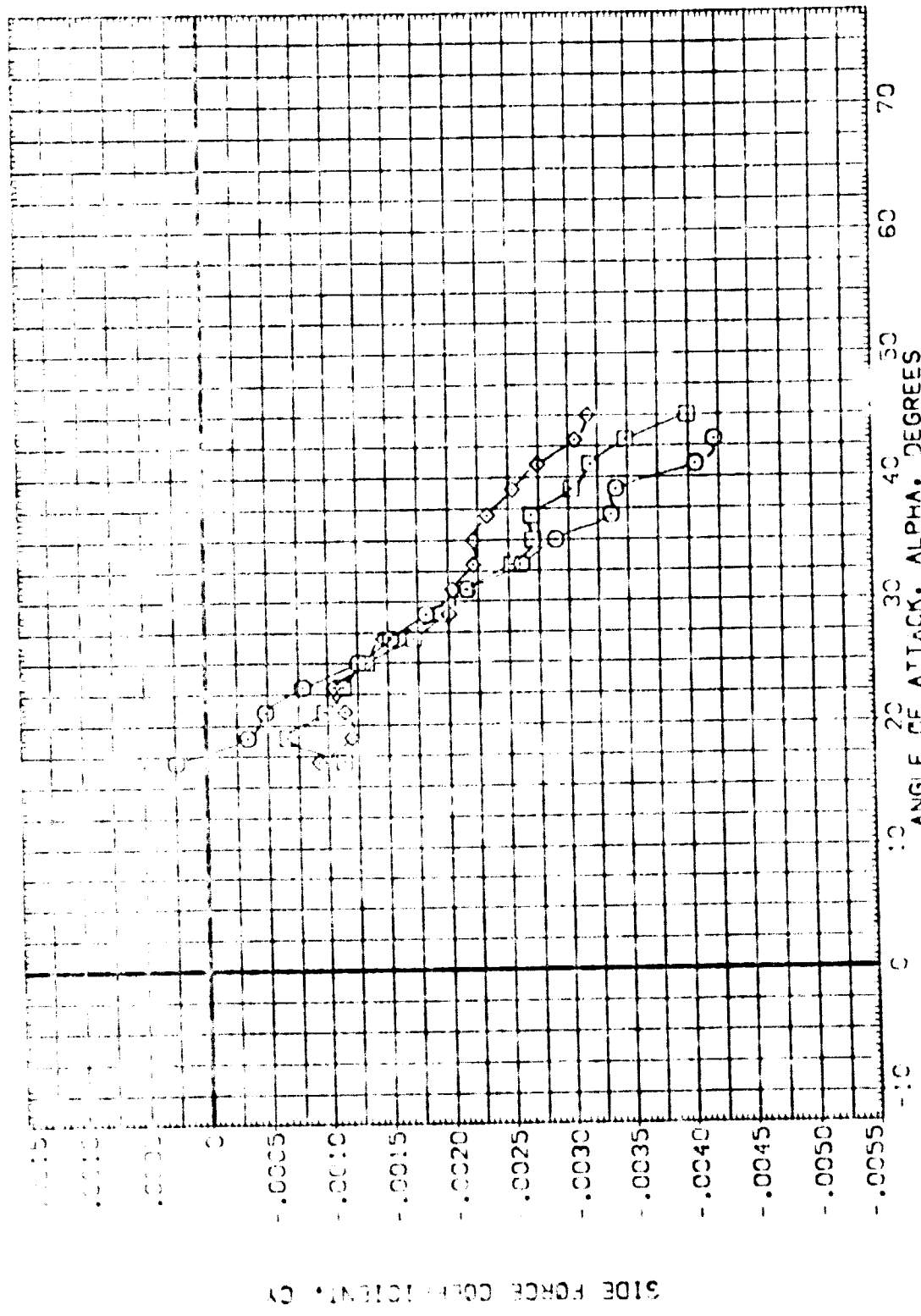


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

(MACH = 7.80)







DATA SET 5100. CONFIGURATION DESCRIPTION

REV.	90° FLAP	ELEVON	DIFFERENCE INFORMATION
5000	.000	-40.000	5000
1.000	.000	-40.000	1.000
1.000	.000	-40.000	1.000
3.530	.000	-40.000	3.530

SCALE 375.0000

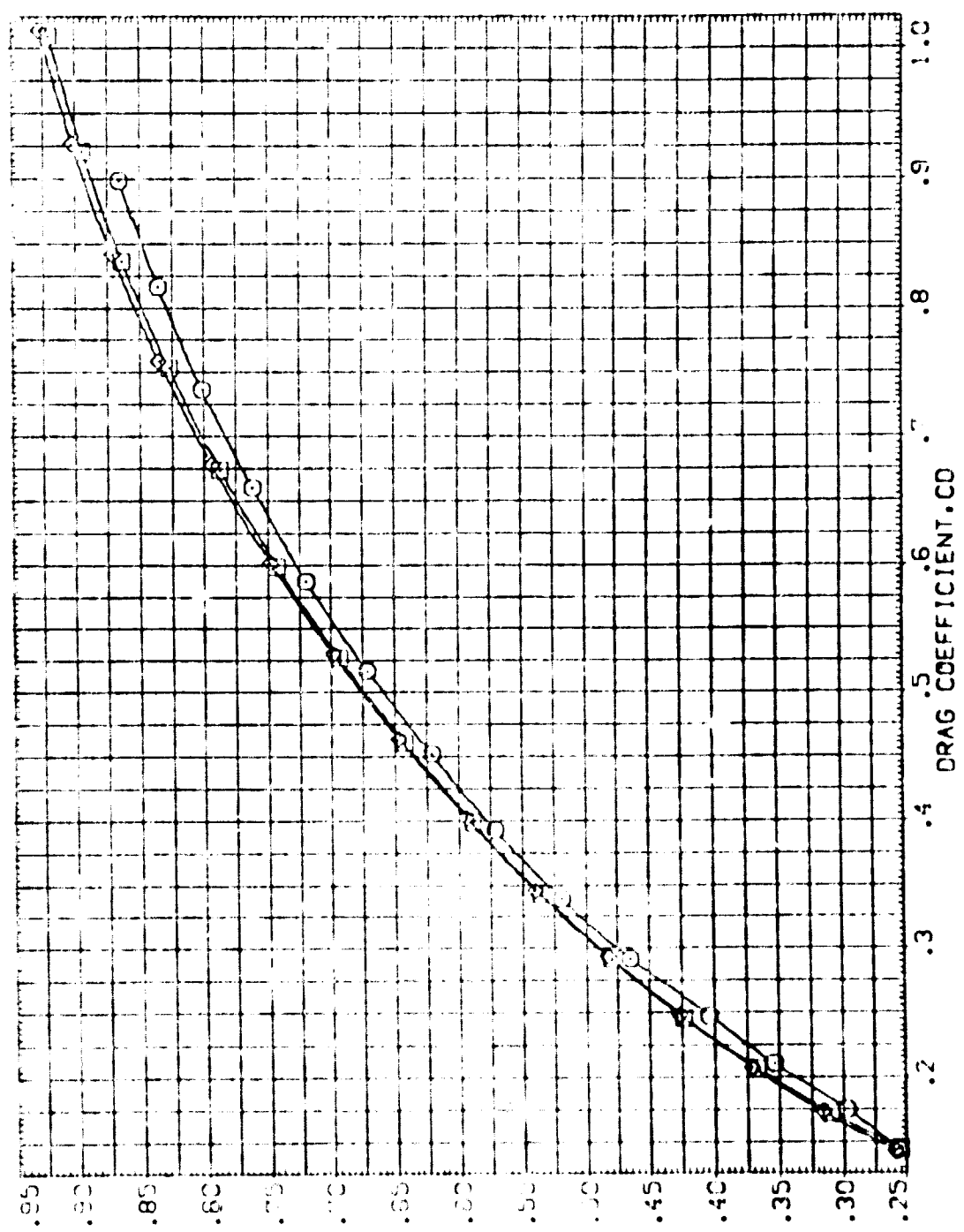


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40. BODY FLAP = 0)

(A) MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BOX LAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(A1062)	0A78 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	.000	-40.000	-40.000	SREF 2690.0000 SQ.FT.
(A1062)	0A78 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	.000	-40.000	-40.000	LREF 474.8100 IN.
(A1062)	0A78 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	.000	-40.000	-40.000	BREF 936.6800 IN.
						XREF 1076.6800 IN.
						YREF .0000 IN.
						ZREF .0000 IN.
						SCALE 375.0000 IN.
						SCALE .0150

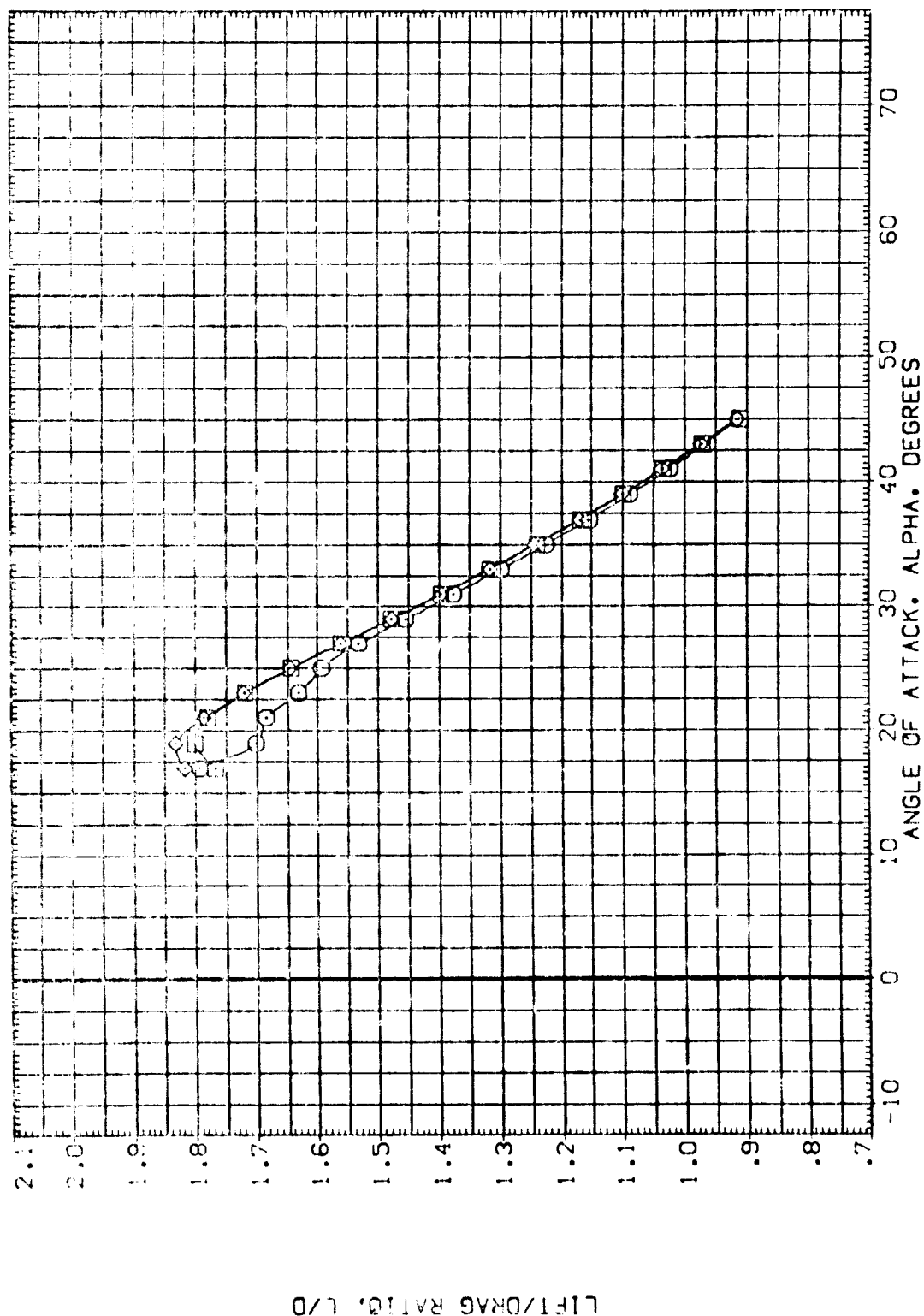


FIG. 26 REYNOLDS NUMBER EFFECTS (ELEVON = -40, BODY FLAP = 0)

(A)MACH = 7.90

DATA SET SYMBOL: (C1+055) (C1+056) (C1+057)

CONFIGURATION DESCRIPTION: 0A79 306 CS E43 FB M16 N28 05 VB V116  
 0A79 306 CS E43 FB M16 N28 05 VB V116  
 0A79 306 CS E43 FB M16 N28 05 VB V116

RV/L: 1.500 1.600 1.660 3.530

3D FLAP: 16.300 16.300 16.300 16.300

ELV-L0: 10.000 10.000 10.000 10.000

ELV-L1: 0.000 0.000 0.000 0.000

REFERENCE INFORMATION: SREF 2690.0000 SQ.FT. 17.1  
 LREF 171.8100 IN. 17.1  
 BREF 936.6600 IN. 17.1  
 XMRP 1075.5800 IN. 17.1  
 YMRP 375.0000 IN. 17.1  
 ZMRP 375.0000 IN. 17.1  
 SCALE 0.150

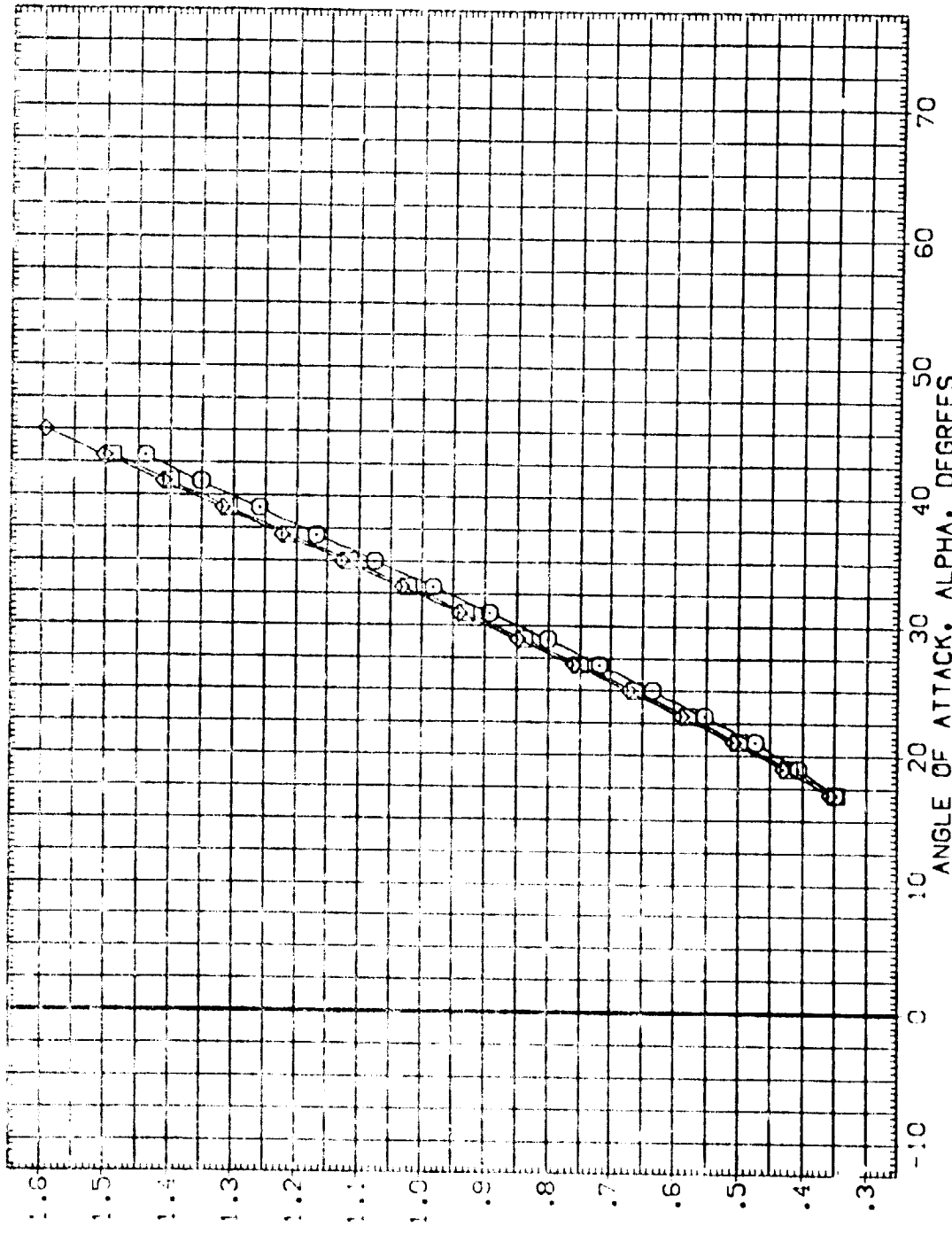


FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
Q	DATA 826 C9 E43 F8 M16 N28 P5 V8 V116	500	16.300	10.000	10.000	SREF 2690.0000
Q	DATA 826 C9 E43 F8 M16 N28 P5 V8 V116	1.860	16.300	10.000	10.000	LOEF 474.8100
Q	DATA 826 C9 E43 F8 M16 N28 P5 V8 V116	3.530	16.300	10.000	10.000	BOEF 936.6800
						XMRD 1075.6800
						YMRD .0000
						ZMRD 375.0000
						SCALE .0150

PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH FORWARD C. G. CLMFW

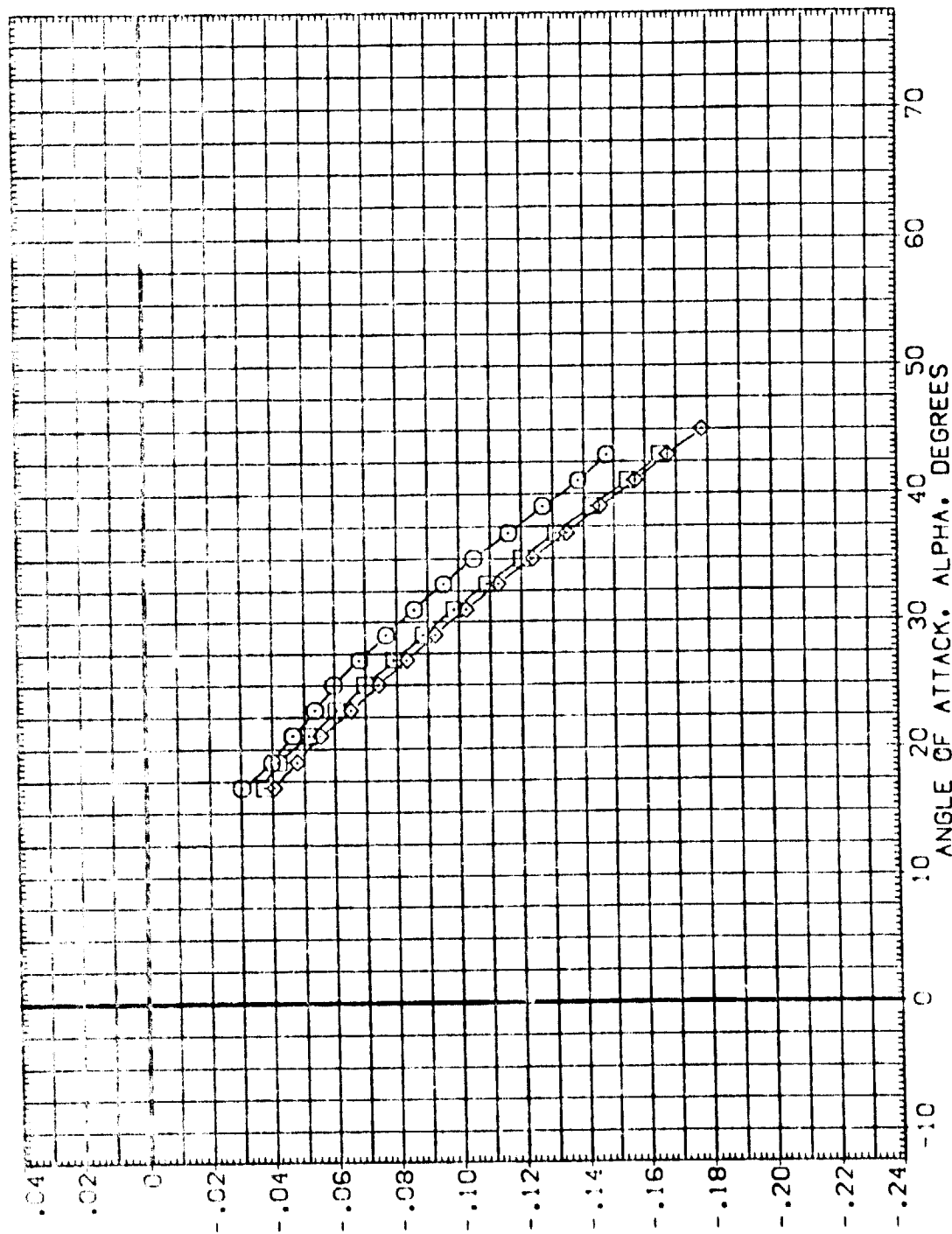


FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(A)MACH = 7.90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1V055)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	.500	16.300	10.000	10.000	SREF 2690.0000 SQ.FT.
(C1V050)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	1.860	16.300	10.000	10.000	LREF 474.8100 IN.
(C1V047)	0A79 B26 C9 E43 F8 H16 N28 RS V8 V116	3.530	16.300	10.000	10.000	BREF 936.6800 IN.
						WHP 1076.6800 IN.X8
						YPRP .0000 IN.Y3
						ZPRP .0000 IN.Z3
						SCALE .0150



PITCHING MOMENT COEFFICIENT AT .65 BODY LENGTH(FORWARD C. G.) CLMFWD

FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(A)MACH = 7.90

# DATA SET SYMBOL

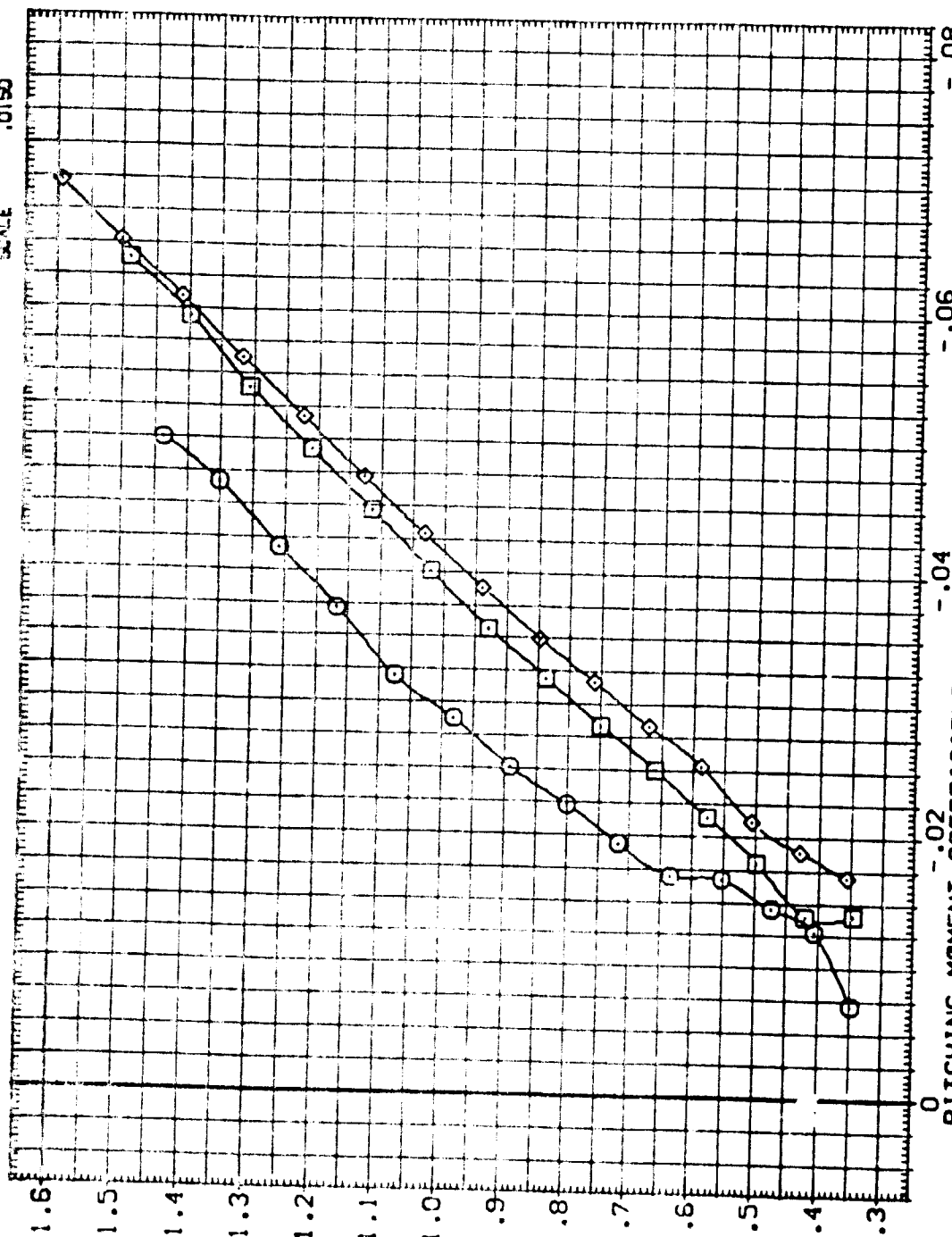
(CIV055)  
(CIV050)  
(CIV047)

## CONFIGURATION DESCRIPTION

0A79 B06 C9 E43 F8 M16 N28 R5 V8 V116  
0A79 B06 C9 E43 F8 M16 N28 R5 V8 V116  
0A79 B06 C9 E43 F8 M16 N28 R5 V8 V116

INVL 1.500 1.860 2.130  
BOLAP 16.300 16.300 16.300  
ELV-L0 10.000 10.000 10.000  
ELV-L1 10.000 10.000 10.000

REFERENCE INFORMATION  
SPEC 2690.0000 50. FT.  
LREF 474.8100 IN.  
DRF 936.6800 IN.  
X1 REF 1075.6800 IN. X0  
Y1 REF 0.0000 IN. Y0  
Z1 REF 375.0000 IN. Z0  
SCALE .0150



NORMAL FORCE COEFFICIENT, CN

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH (AFT C. G.) CLMAFT  
FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)  
(A)MACH = 7.90

DATA SET SYMBOL: (C1W055) (C1W050) (C1W047)

CONFIGURATION DESCRIPTION	RVL	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
0A79 B26 C9 E43 F8 M16 N23 R5 V8 V116	1.500	16.300	10.000	10.000	SREF 2690.0000 SO.FT.
0A79 B26 C9 E43 F8 M16 N23 R5 V8 V116	1.860	16.300	10.000	10.000	LREF 474.8100 IN.
0A79 B26 C9 E43 F8 M16 N23 R5 V8 V116	3.530	16.300	10.000	10.000	BREF 936.5800 IN.XB
					YREF 1076.6800 IN.YB
					YREF 0.0000 IN.YB
					ZREF 375.0000 IN.ZB
					SCALE .0150

CENTER OF PRESSURE LOCATION AS A FRACTION OF BODY LENGTH, XCP/L

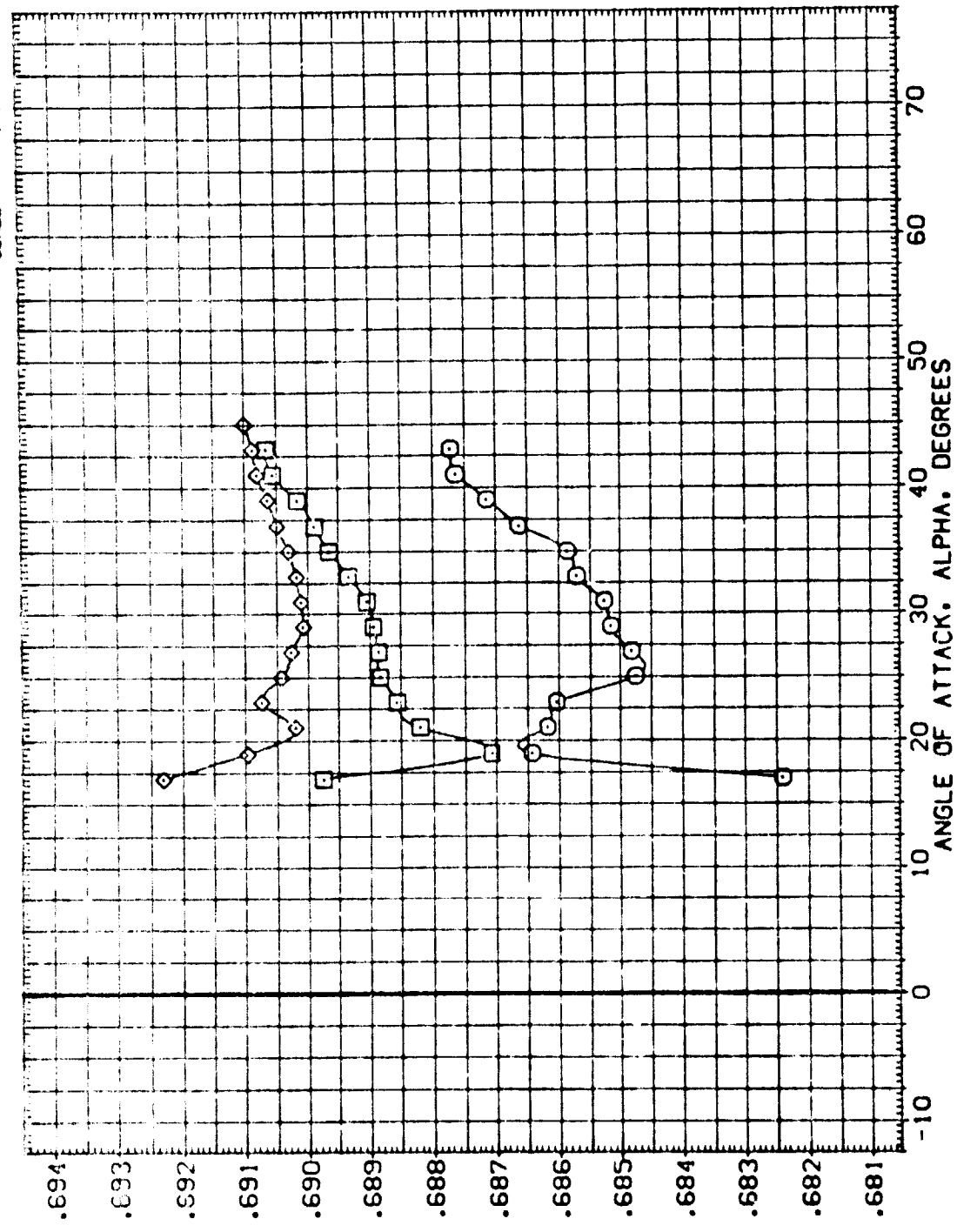


FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(A)MACH = 7.90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BOFLAP	FLV-10	ELV-11	REFERENCE INFORMATION
(C1V055)	BA79 826 CS E43 F8 M16 N28 RS V8 V116	.500	16.300	10.000	10.000	SREF 2690.0000 SQ.FT.
(C1V050)	BA79 826 CS E43 F8 M16 N28 RS V8 V116	1.860	16.300	10.000	10.000	LINEF 474.8100 IN.
(C1V047)	BA79 826 CS E43 F8 M16 N28 RS V8 V116	3.530	16.300	10.000	10.000	SREF 936.5800 IN.
						XREF 1076.6900 IN.X3
						YREF 177.0000 IN.Y3
						ZREF 375.0000 IN.Z3
						SCALE .0150

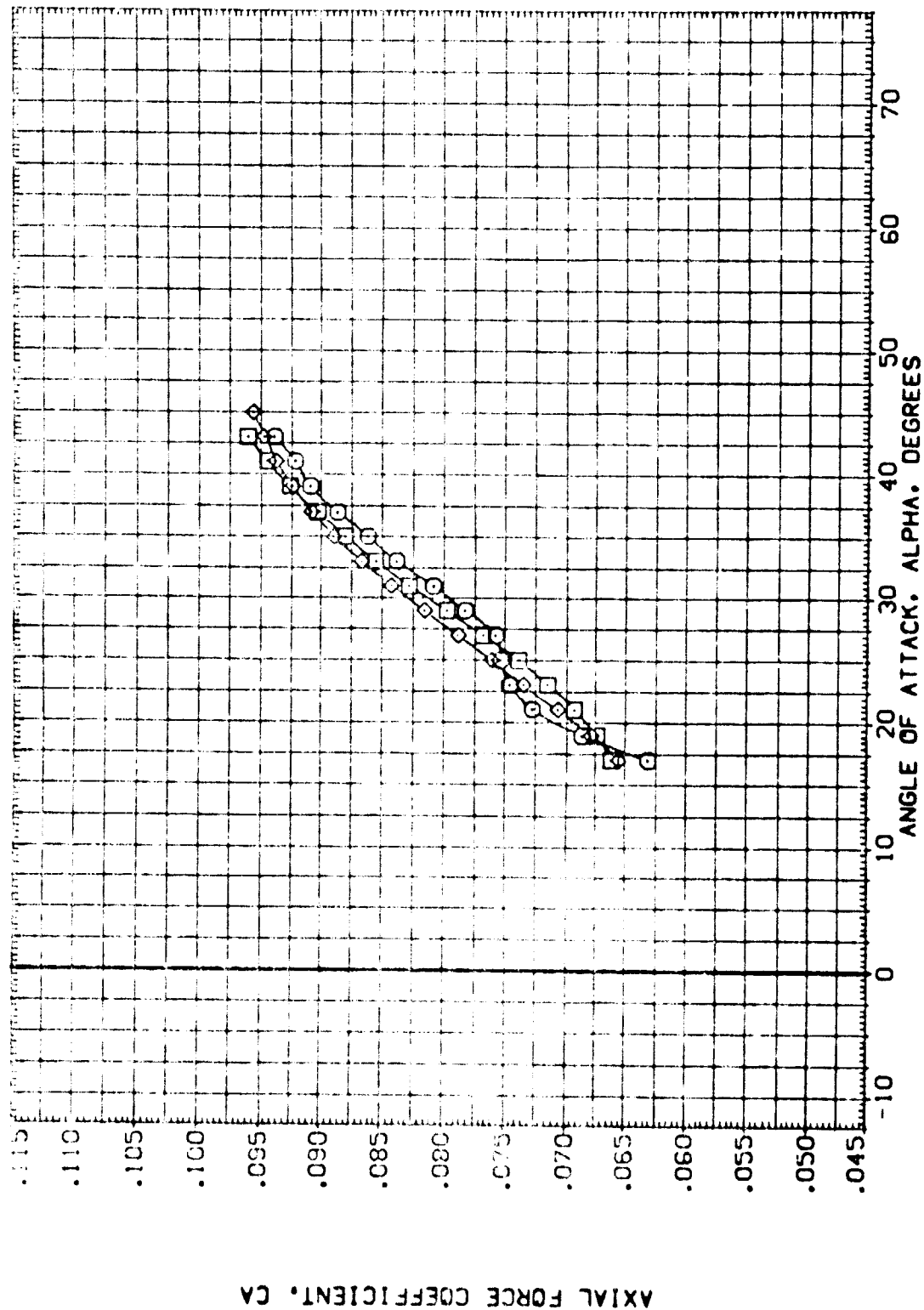


FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CTV055)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	.500	16.300	10.000	10.000	SREF 2690.0000 SQ.FT.
(CTV050)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	1.860	16.300	10.000	10.000	LREF 474.8100 IN.
(CTV047)	0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	16.300	10.000	10.000	BREF 936.6800 IN.
						XREF 1076.0000 IN. X0
						YREF .0000 IN. Y0
						ZREF 375.0000 IN. Z0
						SCALE .0150

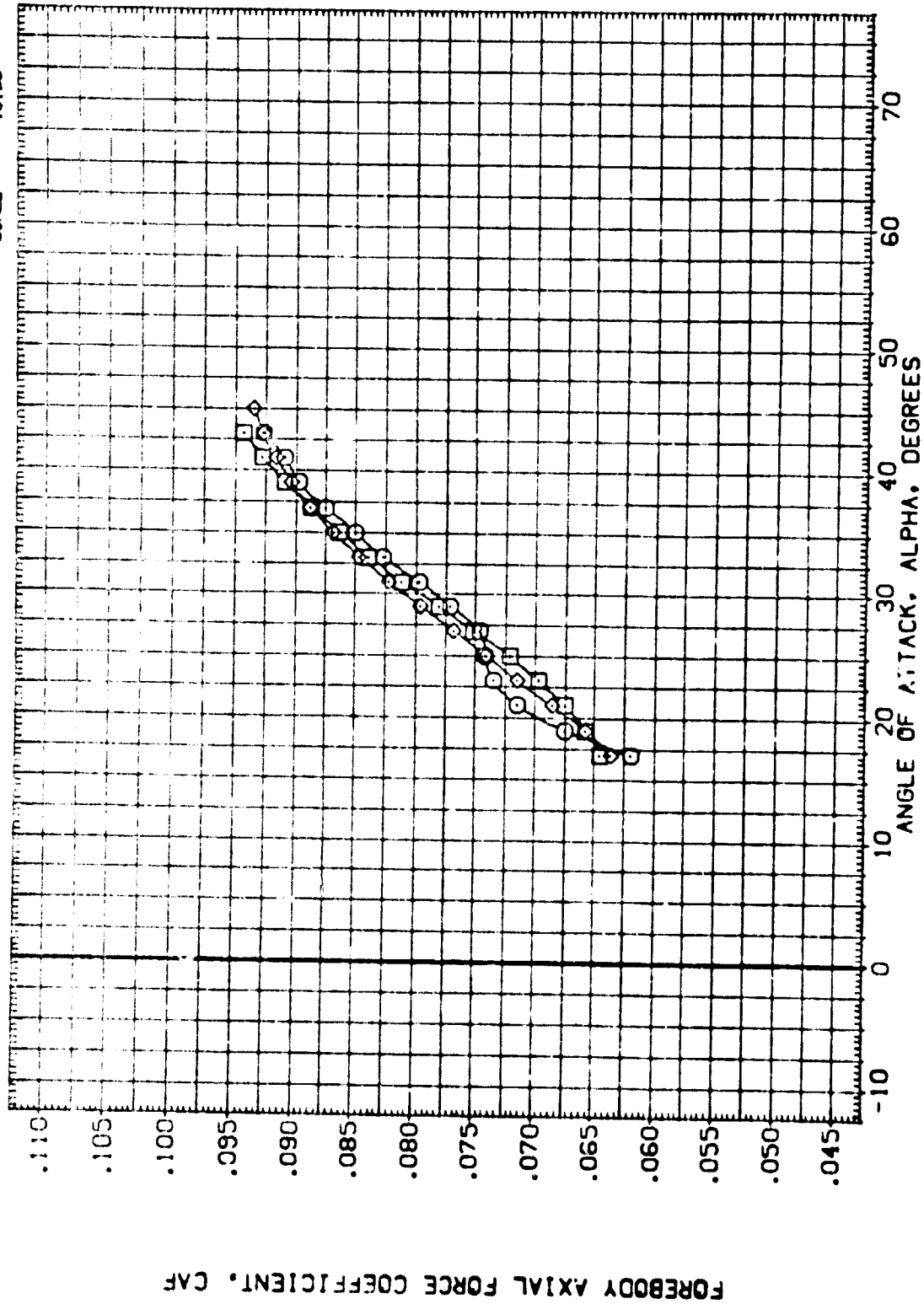


FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(A)MACH = 7.90



DATA SET SYMBOL: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

REFERENCE INFORMATION:  
 SREF: 2630.0000 SQ. FT.  
 LREF: 474.8100 IN.  
 BREF: 936.8600 IN.  
 XREF: 1075.5500 IN.  
 YREF: 1075.5500 IN.  
 ZREF: 375.0000 IN.  
 SCALE: .0150

CONFIGURATION DESCRIPTION:  
 0A75 876 C9 F43 F8 M16 N28 RS V8 V116  
 0A75 876 C9 F43 F8 M16 N28 RS V8 V116  
 0A75 876 C9 F43 F8 M16 N28 RS V8 V116

ANGLE OF ATTACK, ALPHA, DEGREES

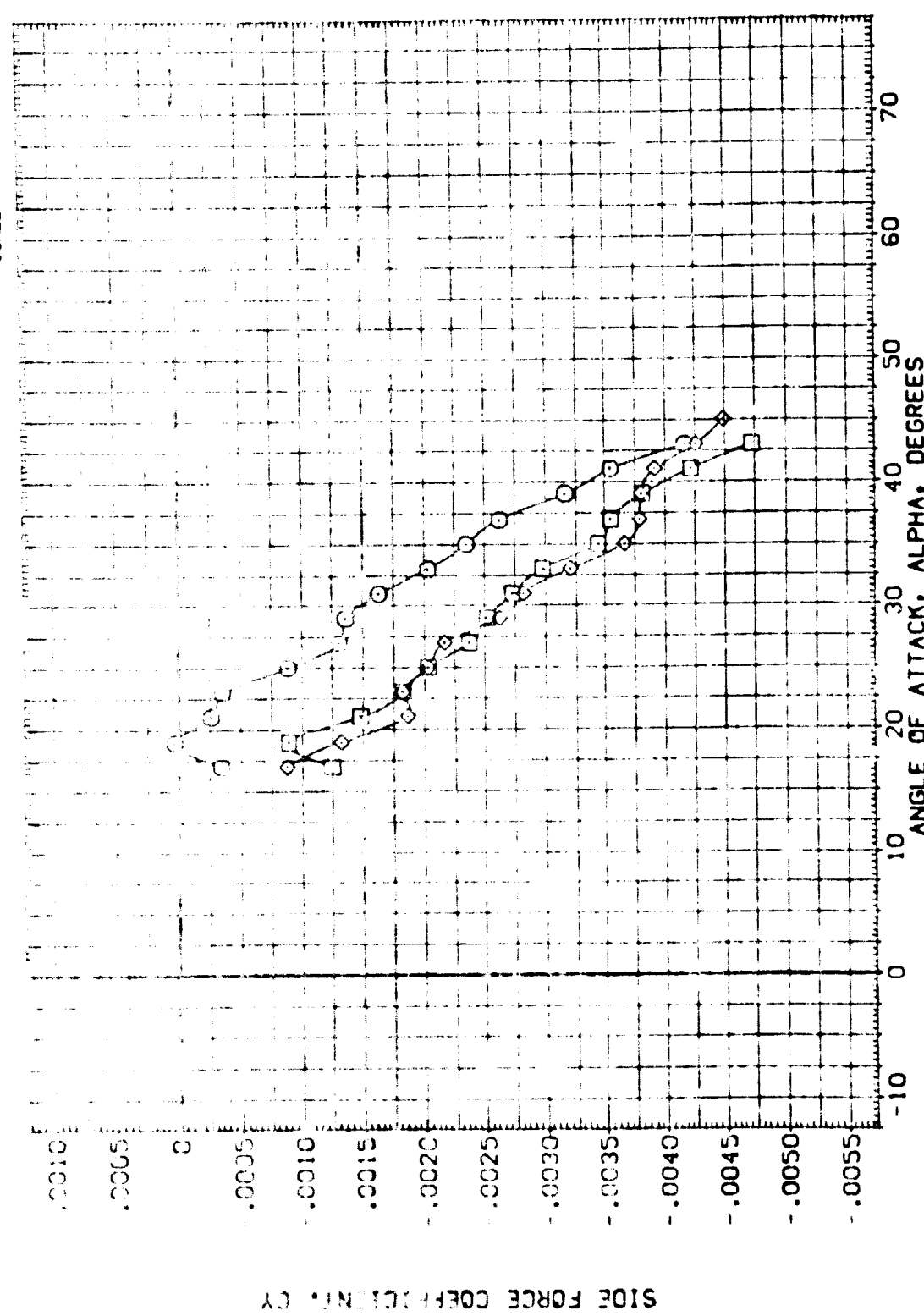


FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(A) MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NVL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(A1055)	CA 9 B06 CS E43 F8 M16 AC8 RS V8 V116	.500	15.300	10.000	10.000	SREF 2690.000 SQ.FT.
(A1056)	CA 9 B06 CS E43 F8 M16 AC8 RS V8 V116	1.850	15.300	10.000	10.000	UREF 474.9100 IN.
(A1057)	CA 9 B06 CS E43 F8 M16 AC8 RS V8 V116	3.530	15.300	10.000	10.000	UREF 273.9100 IN.
						XREF 1076.000 IN.X0
						YREF 1469.000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

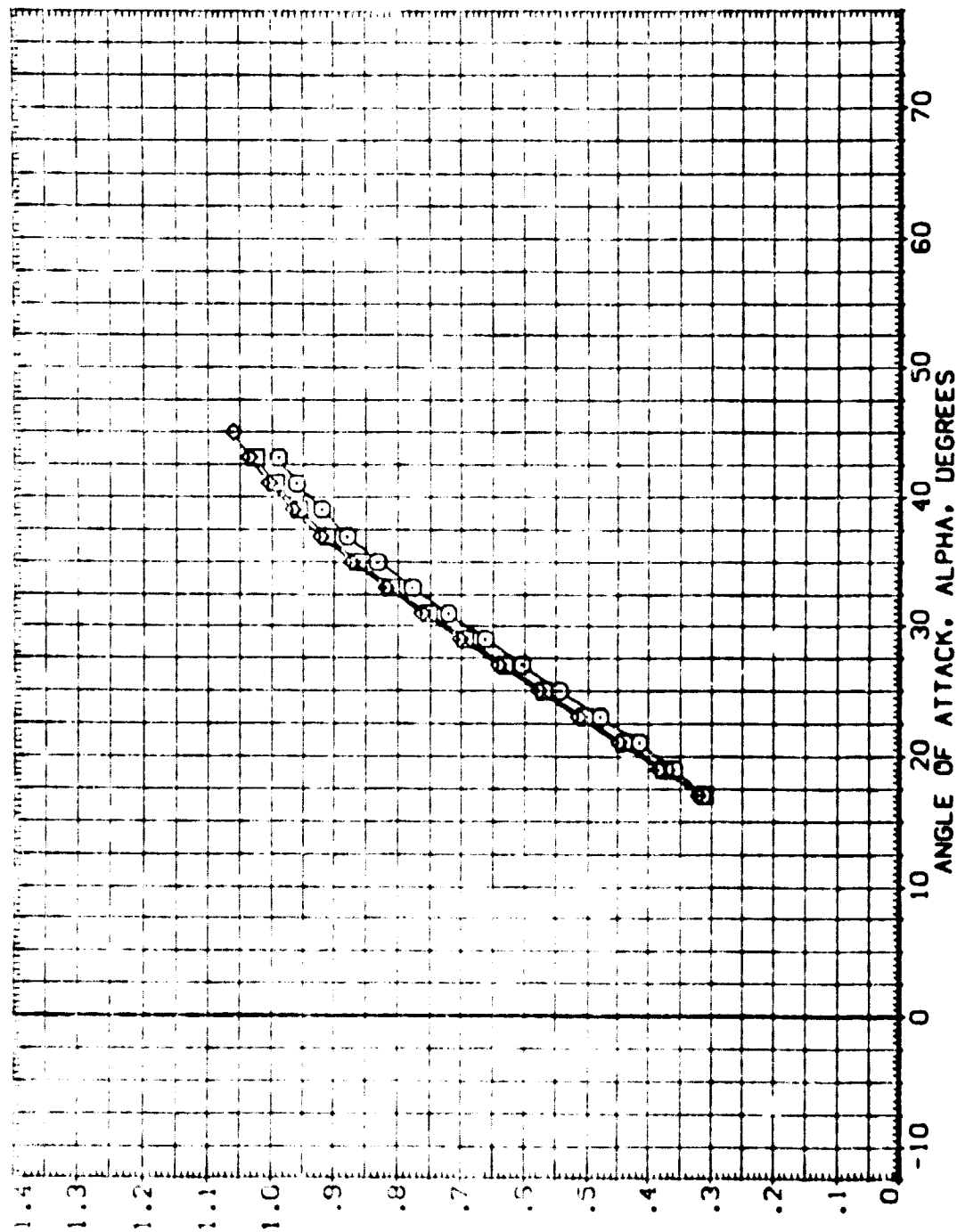


FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF. INFO	50 FT.
0A79 826 C9 E43 F8 M16 N28 RS V8 V11S		SREF	2630.0000
0A79 826 C9 E43 F8 M16 N28 RS V8 V11S		LREF	474.8110
0A79 826 C9 E43 F8 M16 N28 RS V8 V11S		BREF	936.6800
0A79 826 C9 E43 F8 M16 N28 RS V8 V11S		XREF	1076.6700
0A79 826 C9 E43 F8 M16 N28 RS V8 V11S		YREF	11.00
0A79 826 C9 E43 F8 M16 N28 RS V8 V11S		ZREF	375.0000
0A79 826 C9 E43 F8 M16 N28 RS V8 V11S		SCALE	.0150

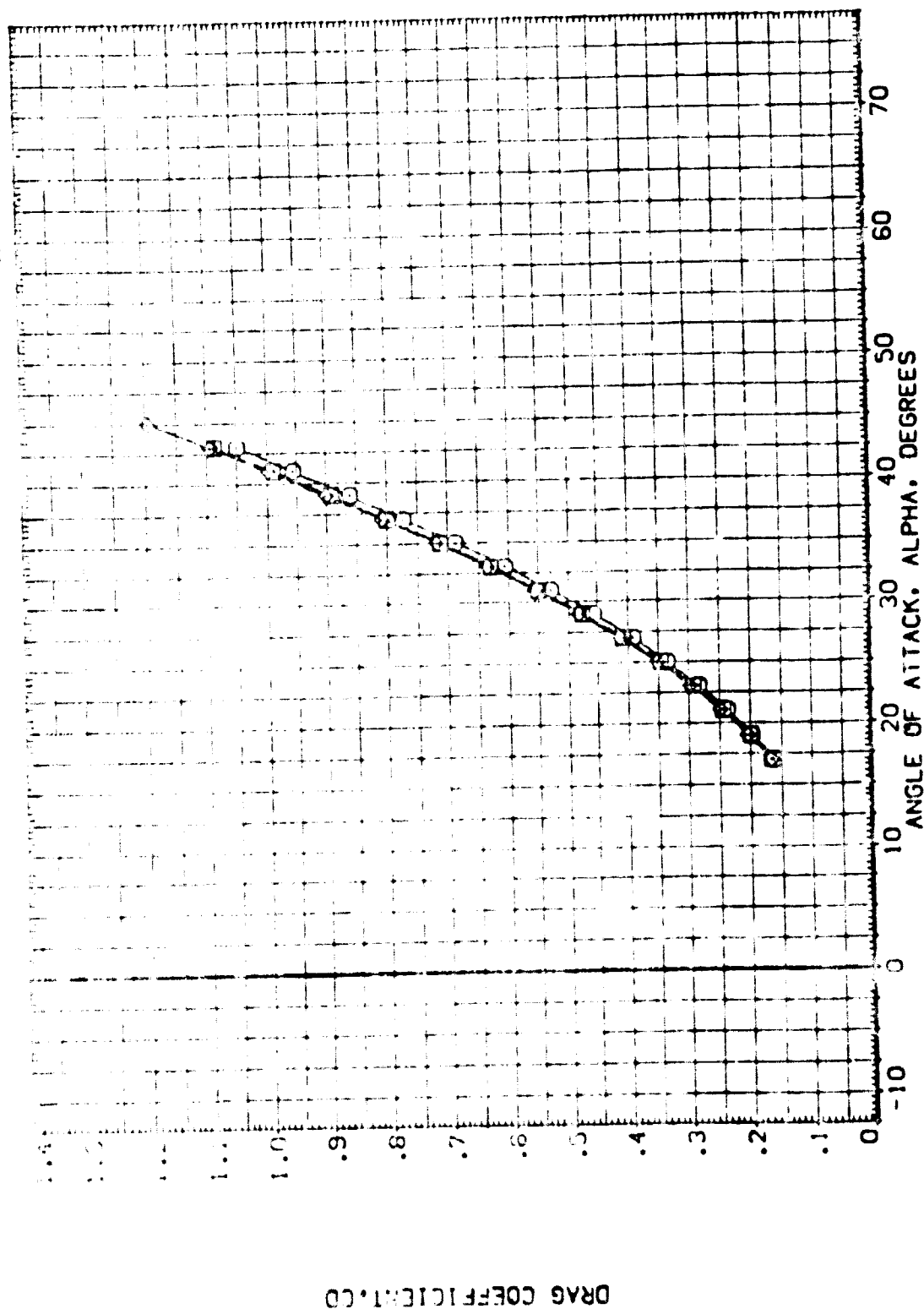


FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(MACH = 7.90)



DATA SET SYMBOL: (A1W055)  
 (A1W050)  
 (A1W047)

CONFIGURATION DESCRIPTION:  
 OA79 B26 C9 E43 F8 H16 N28 RS VR V116  
 OA79 B26 C9 E43 F8 H16 N28 RS VR V116  
 OA79 B26 C9 E43 F8 H16 N28 RS VR V116

RVA: 500  
 1.860  
 3.530

BOFLAP: 16.300  
 16.300  
 16.300

ELV-L0: 10.000  
 10.000  
 10.000

ELV-L1: 10.000  
 10.000  
 10.000

REFERENCE INFORMATION:  
 SREF: 2630.0000 SQ.FT.  
 LREF: 474.8100 IN.  
 BREF: 936.6900 IN.  
 XREF: 1076.6900 IN.  
 YREF: 0.0000 IN.  
 ZREF: 375.0000 IN.  
 SCALE: .0150

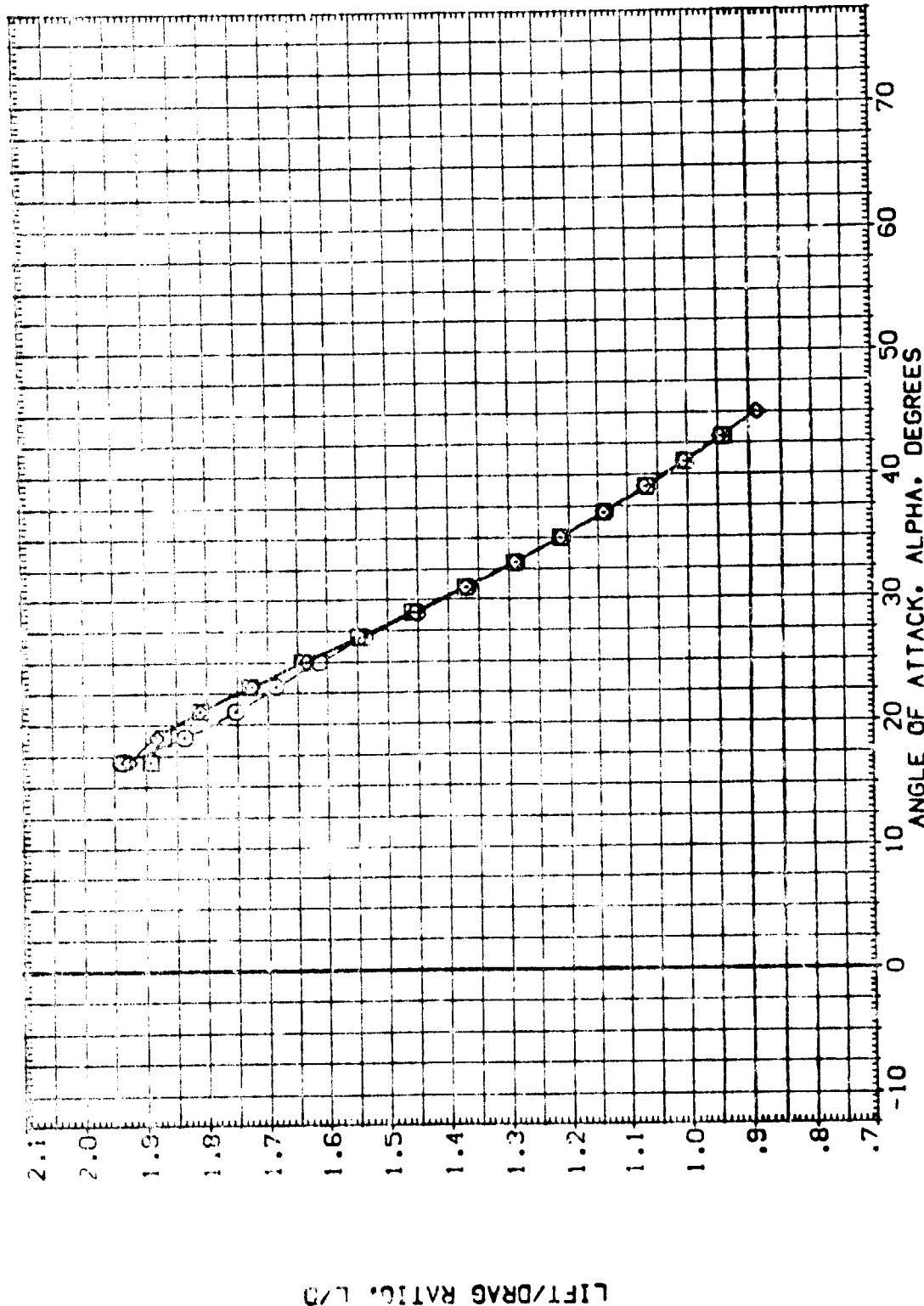


FIG. 27 REYNOLDS NUMBER EFFECTS (ELEVON = 10, BODY FLAP = 16.3)

(A)MACH = 7.90



DATA SET SYMBOL: (CTV050) (CTV053) (CTV021)

CONFIGURATION DESCRIPTION: OA79 826 CS 543 FB M16 N28 RS V8 M116  
 OA79 826 CS 543 FB M16 N28 RS V8 M116  
 OA79 826 CS 543 FB M16 N23 RS VS M116

RVL: .500  
 1.860  
 3.530

BOFLAP: 16.300  
 16.300  
 16.300

ELV-L0: 20.000  
 20.000  
 20.000

ELV-L1: 20.000  
 20.000  
 20.000

REFERENCE INFORMATION: SREF 2690.0000 50.0 FT.  
 LREF 474.9100 IN.  
 SREF 925.0000 IN.  
 XREF 1076.0000 IN.  
 YREF 375.0000 IN.  
 ZREF 2060.0000 IN.  
 SCALE 1.0E-30

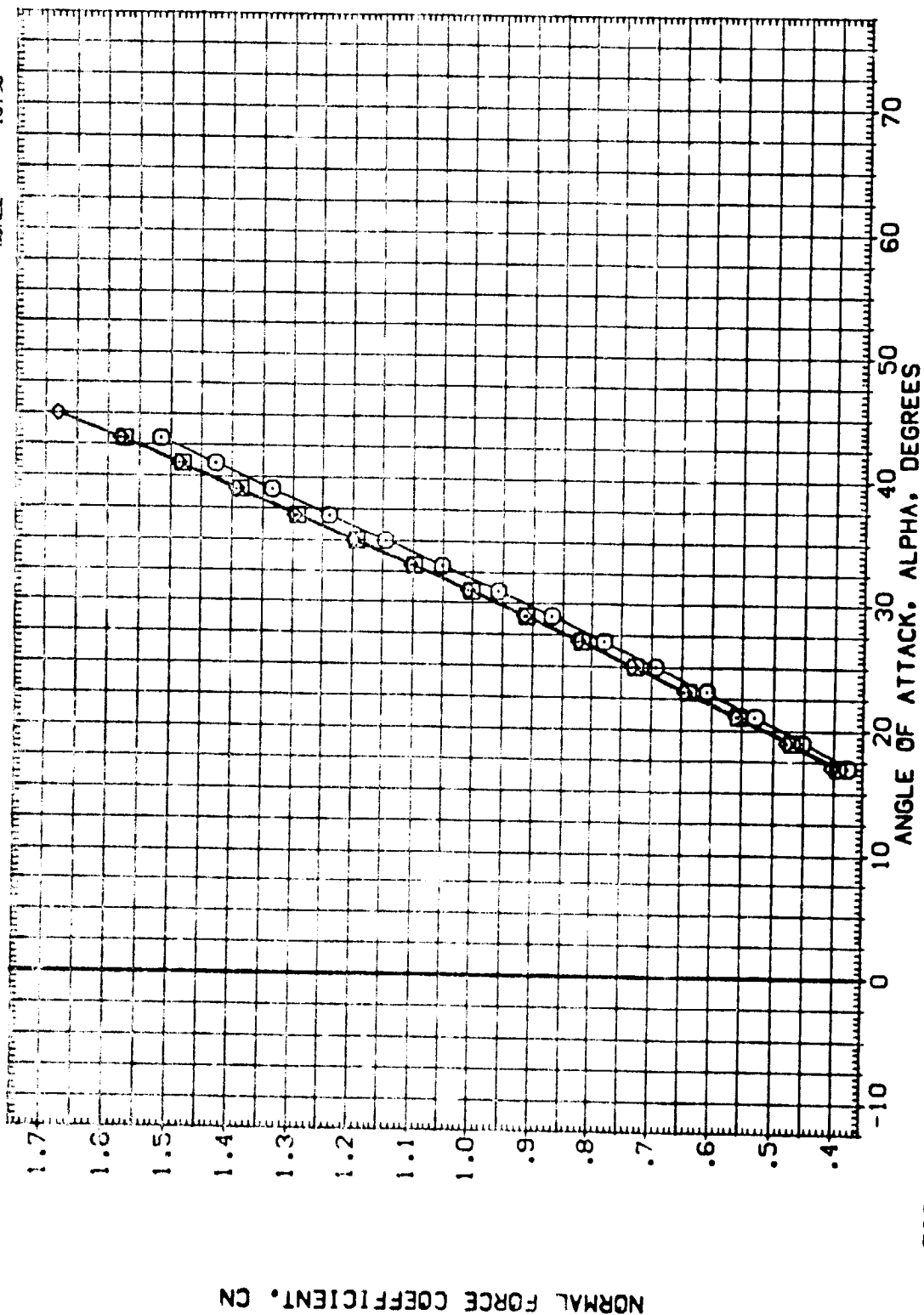


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)  
 (A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C14060)	CA78 B26 C9 E43 F6 M16 N08 RS V8 V116	500	16.300	20.000	20.000	SREF 2690.0000 50.FT.
(C14061)	CA78 B26 C9 E43 F6 M16 N08 RS V8 V116	1.860	16.300	20.000	20.000	LREF 474.8100 IN.
(C14062)	CA79 B26 C9 E43 F6 M16 N08 RS V8 V116	3.530	16.300	20.000	20.000	PREF 335.0900 IN.
						WREF 1078.0300 IN.
						WREF 375.0000 IN.
						ZREF 375.0000 IN.
						SCALE .0150

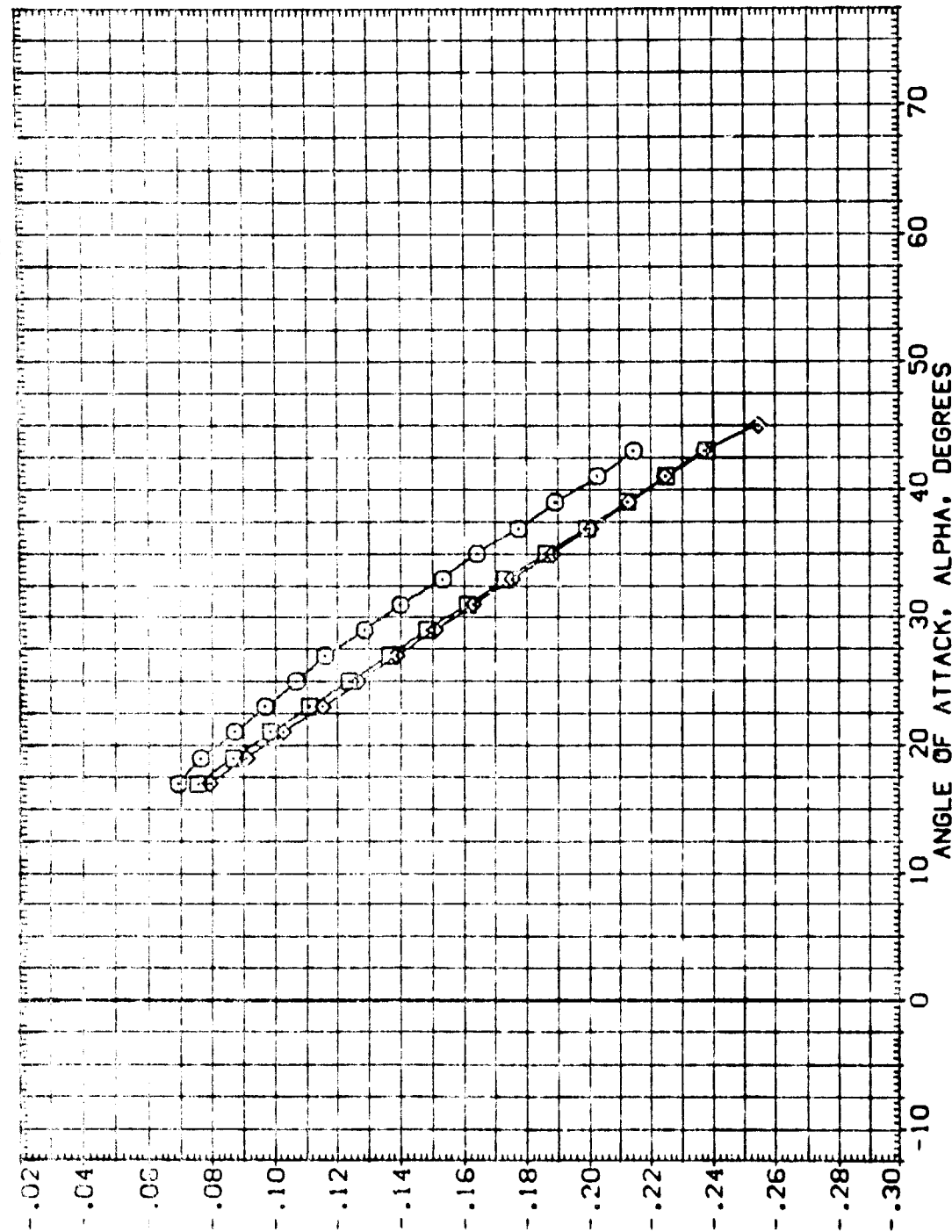


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET 57-800  
 (CTV050)  
 (CTV053)  
 (CTV021)

CONFIGURATION DESCRIPTION  
 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116  
 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116  
 0A79 B26 C9 E43 F8 M16 N28 R5 V8 V116

RMV  
 .500  
 1.860  
 3.530

REFLAP  
 16.300  
 16.300  
 16.300

ELV-L0  
 20.000  
 20.000  
 20.000

ELV-L1  
 20.000  
 20.000  
 20.000

REFERENCE INFORMATION  
 SREF 2890.0000 SQ.FT.  
 LREF 474.8100 IN.  
 BREF 323.6000 IN.  
 XREF 1076.0000 IN.  
 YREF .0000 IN.  
 ZREF 375.0000 IN.  
 SCALE .0150

PITCHING MOMENT COEFFICIENT AT .675 BODY LENGTH(AFT C. G.) CLMFT

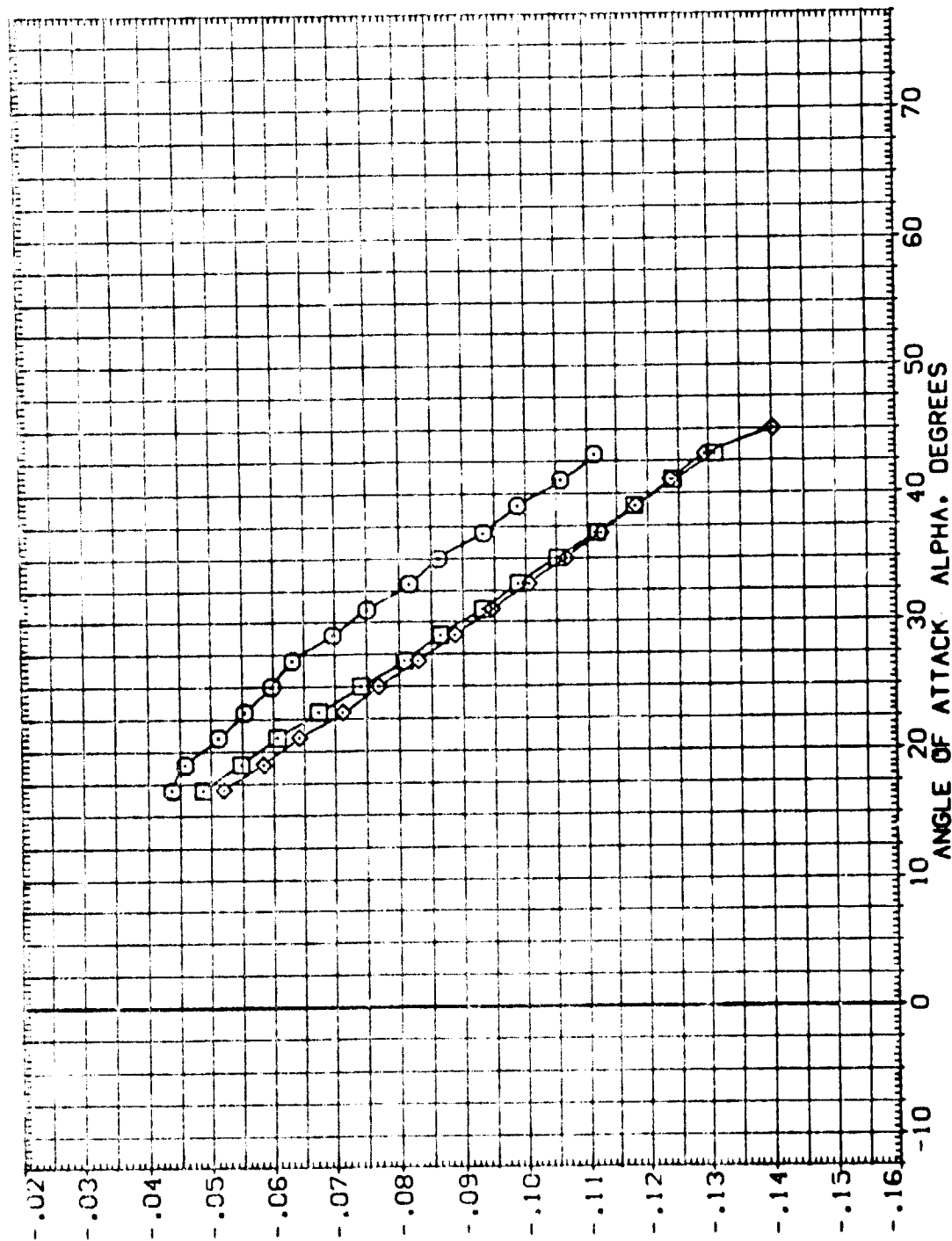


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CIV050)	QV79 B25 C9 E43 F8 M16 N28 P5 V8 V116	.500	16.300	20.000	20.000	SREF 2690.0000 SQ.FT.
(CIV053)	QV79 B26 C9 E43 F8 M16 N28 P5 V8 V116	1.860	16.300	20.000	20.000	LREF 474.8100 IN.
(CIV021)	QV79 B26 C9 E43 F8 M16 N28 P5 V8 V116	3.530	16.300	20.000	20.000	BREF 936.8800 IN.
						XREF 1076.8800 IN.
						YREF .0000 IN.
						ZREF .0000 IN.
						SCALE 375.0150

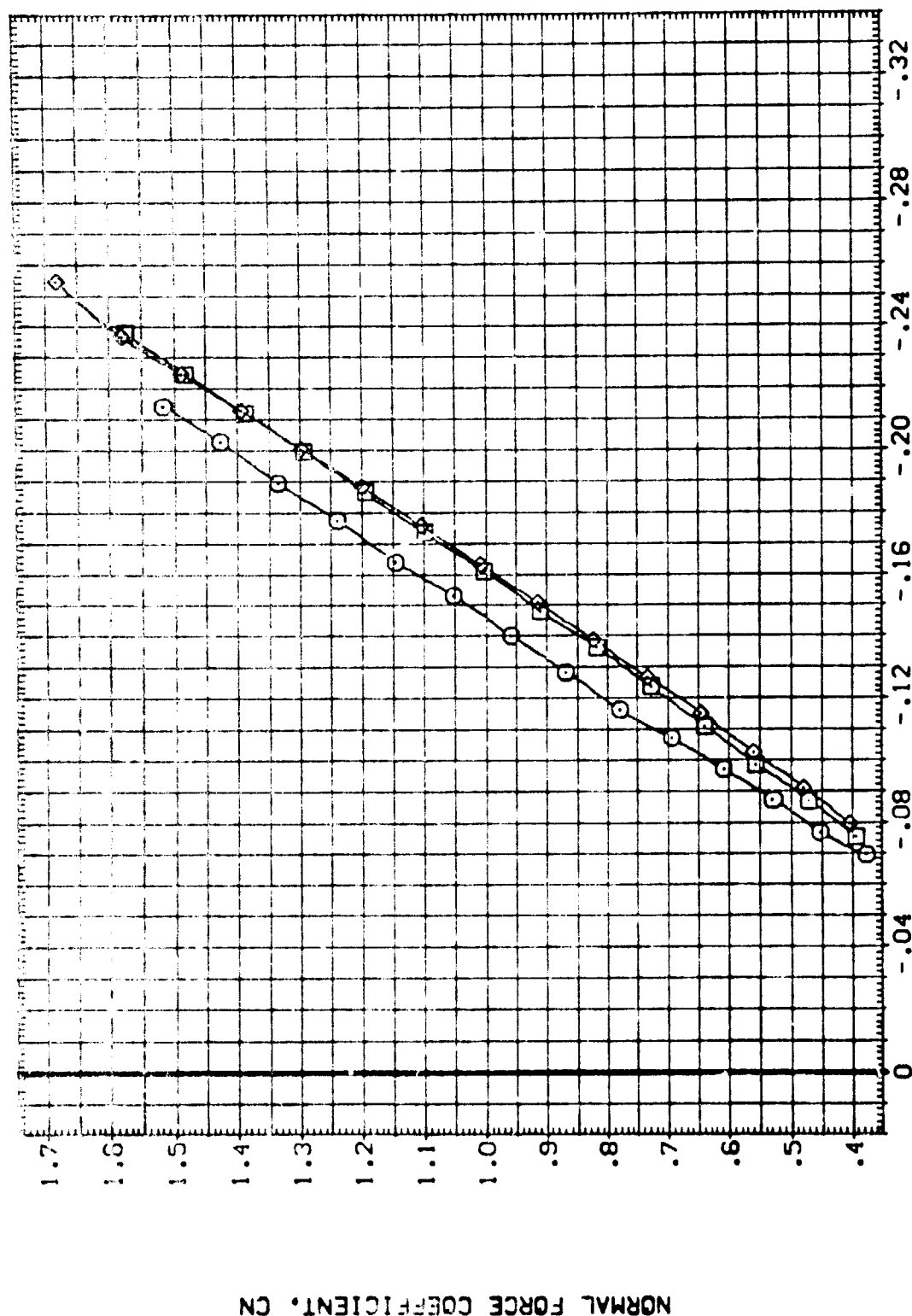


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CTV050)    0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (CTV053)    0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116  
 (CTV021)    0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116

RVL    500  
 1.660  
 3.530

50% LAP    16.300  
 16.300  
 16.300

ELV-L0    20.000  
 20.000  
 20.000

ELV-L1    20.000  
 20.000  
 20.000

REFERENCE INFORMATION    50. FT.  
 SREF    2690.0000    IN.  
 LREF    474.8100    IN.  
 PREF    936.6300    IN.  
 XREF    1076.1400    IN.  
 YAPP    .0000    IN.  
 ZAPP    375.0000    IN.  
 SCALE    .0150

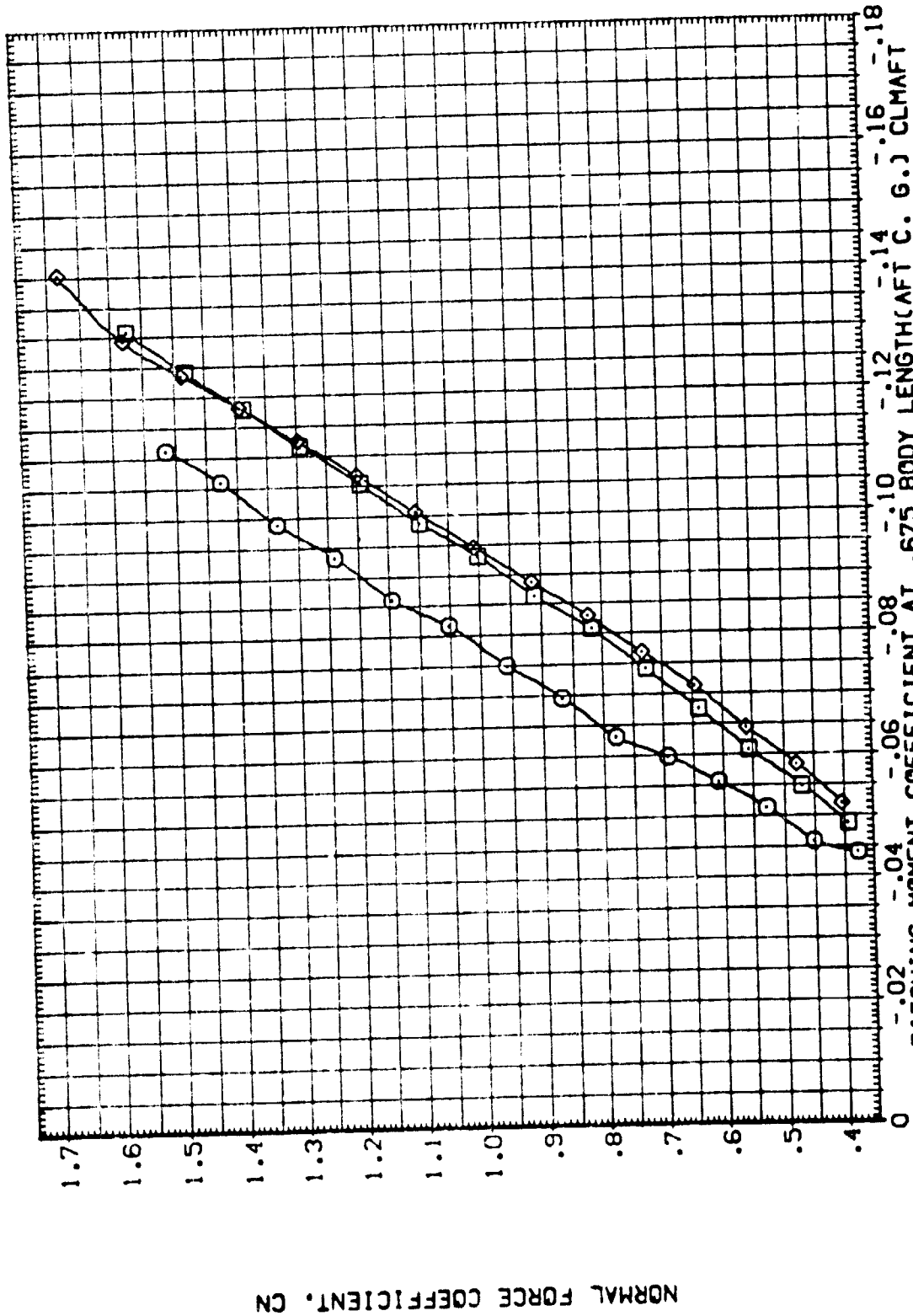


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVEN = 20, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CG CONFIGURATION DESCRIPTION	RV/L	WDFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(C1V060)	0A79 B06 C9 E43 F8 M16 N28 R5 V8 V116	.500	16.300	20.000	20.000	SREF 2650.0000 SQ.FT.
(C1V063)	0A79 B06 C9 E43 F8 M16 N28 R5 V8 V116	1.850	16.300	20.000	20.000	LREF 474.8100 IN.
(C1V021)	0A79 B06 C9 E43 F8 M16 N28 R5 V8 V116	3.530	16.300	20.000	20.000	BREF 936.6900 IN.
						YREF 1076.5600 IN.
						YREF 375.0000 IN.
						SCALE .0150

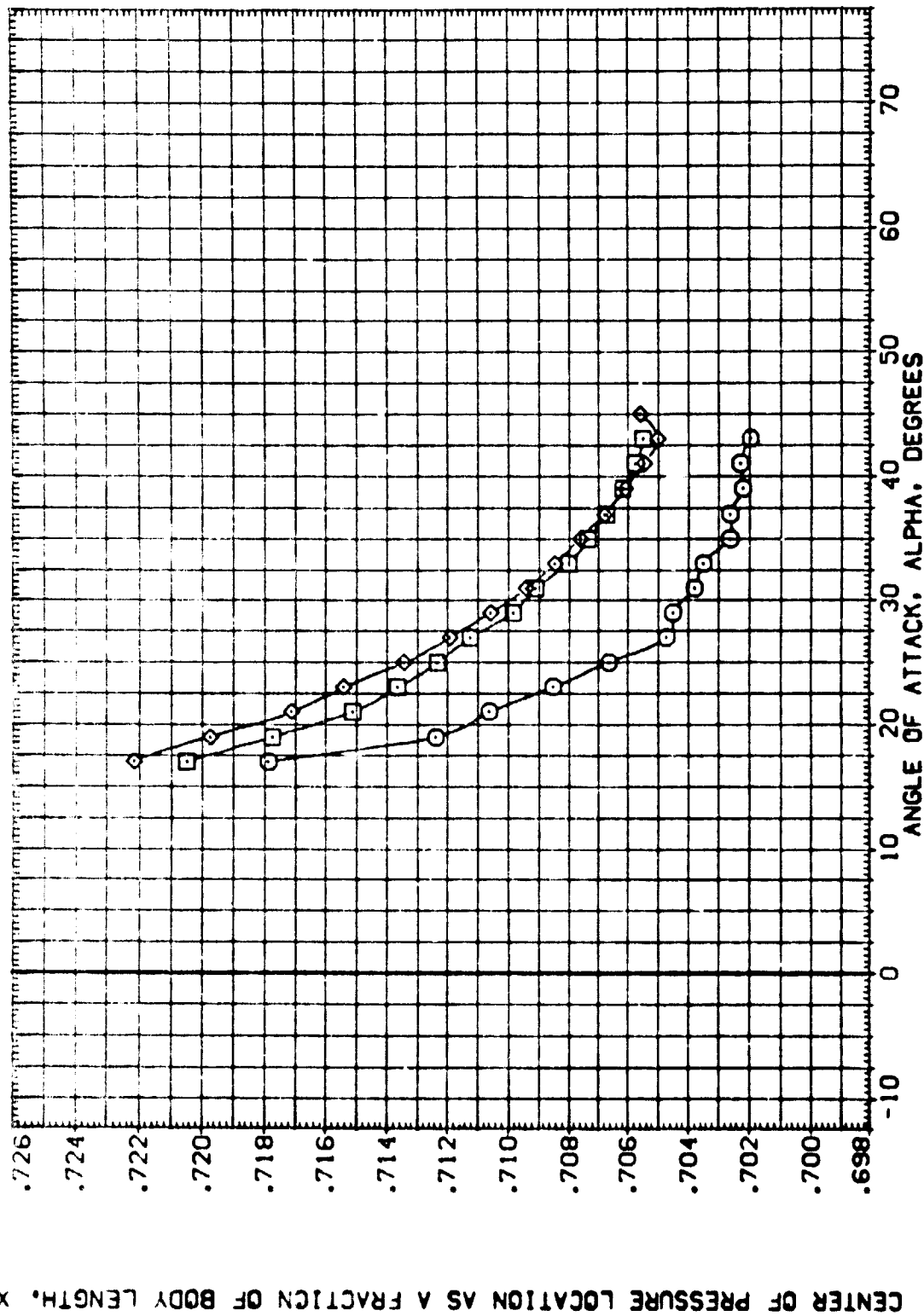


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BOFLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CIV060)	BA79 B26 C9 E43 F8 H16 N28 P5 V8 V116	.500	16.300	20.000	20.000	SREF 2690.0000 SQ.FT.
(CIV053)	BA79 B26 C9 E43 F8 H16 N28 P5 V8 V116	1.860	16.300	20.000	20.000	LREF 474.8100 N.
(CIV021)	BA79 B26 C9 E43 F8 H16 N28 P5 V8 V116	3.530	16.300	20.000	20.000	BREF 936.6800 N.
						XTOP 1078.0000 N.Y0
						YTOP 0.0000 N.Z0
						ZTOP 375.0000
						SCALE .0150

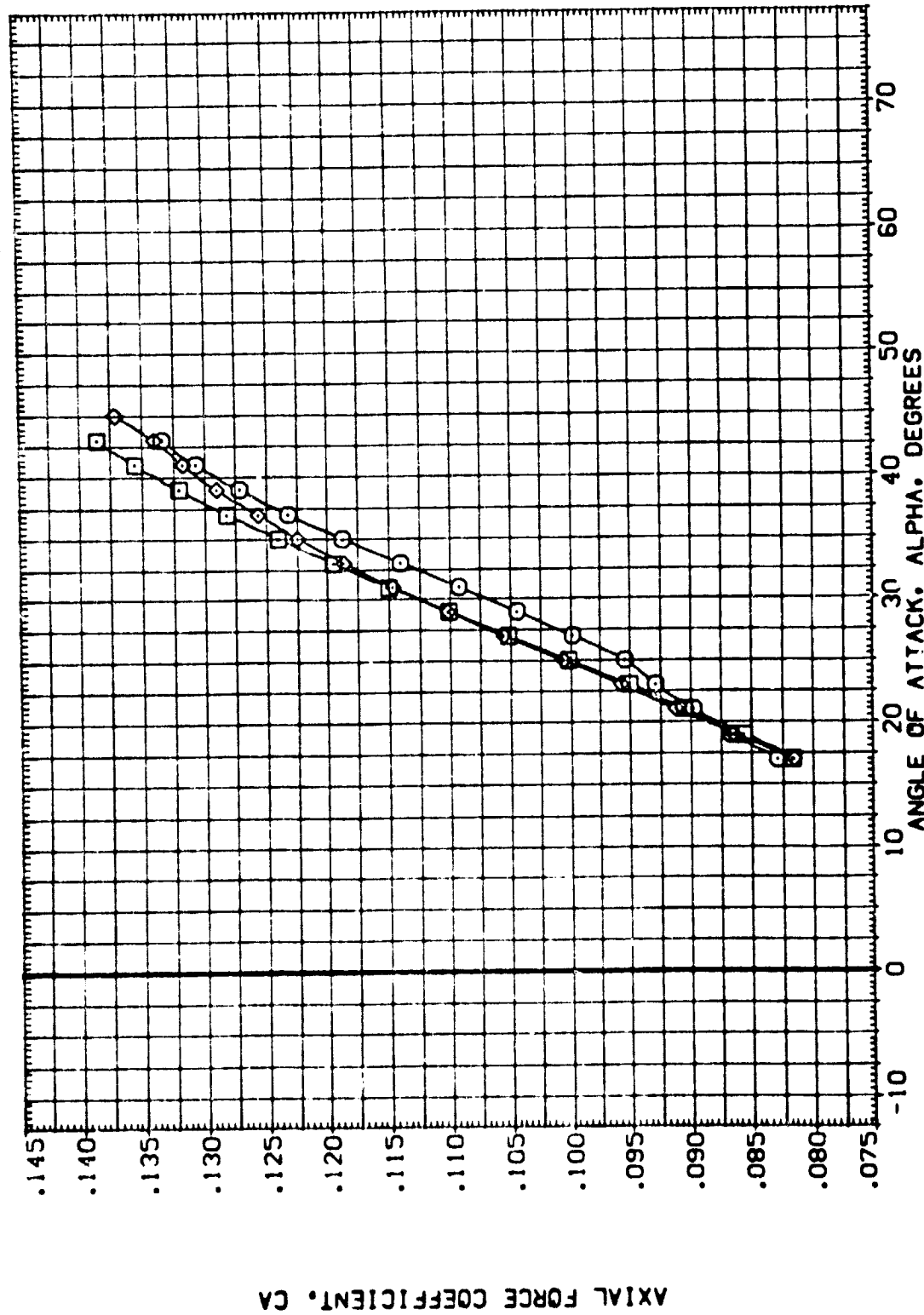


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A)MACH = 7.90





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	3D FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CIV080)	DATA 826 C9 E43 F8 M16 N28 R5 V8 VII6	.500	16.300	20.000	20.000	SREF 2690.0000 SQ.FT.
(CIV053)	DATA 826 C9 E43 F8 M16 N28 R5 V8 VII6	1.860	16.300	20.000	20.000	LREF 474.8100 IN.
(CIV021)	DATA 826 C9 E43 F8 M16 N28 R5 V8 VII6	3.530	16.300	20.000	20.000	BREF 936.6800 IN.
						XREF 1076.6800 IN. X0
						YREF .0000 IN. Y0
						ZREF 375.0000 IN. Z0
						SCALE .0150

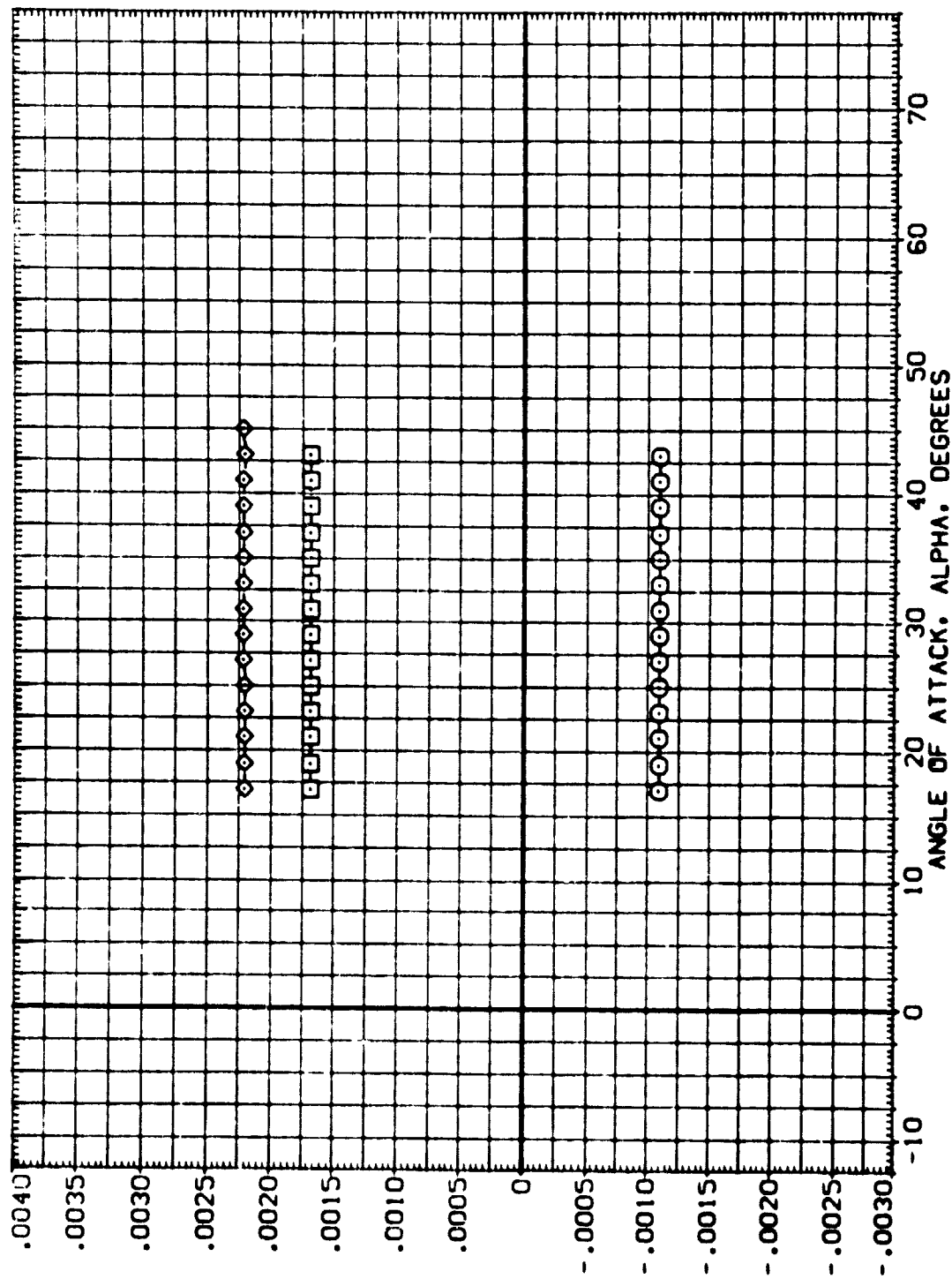


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(CIV050)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	.500	16.300	20.000	20.000	SREF 2630.0000 SQ.FT.
(CIV051)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	1.860	16.300	20.000	20.000	LREF 474.8100 IN.
(CIV052)	0A79 826 C9 E43 F8 M16 N28 RS V8 V116	3.530	16.300	20.000	20.000	BREF 936.6800 IN.
						XREF 1076.6800 IN.X0
						YREF .0000 IN.Y0
						ZREF 375.0000 IN.Z0
						SCALE .0150

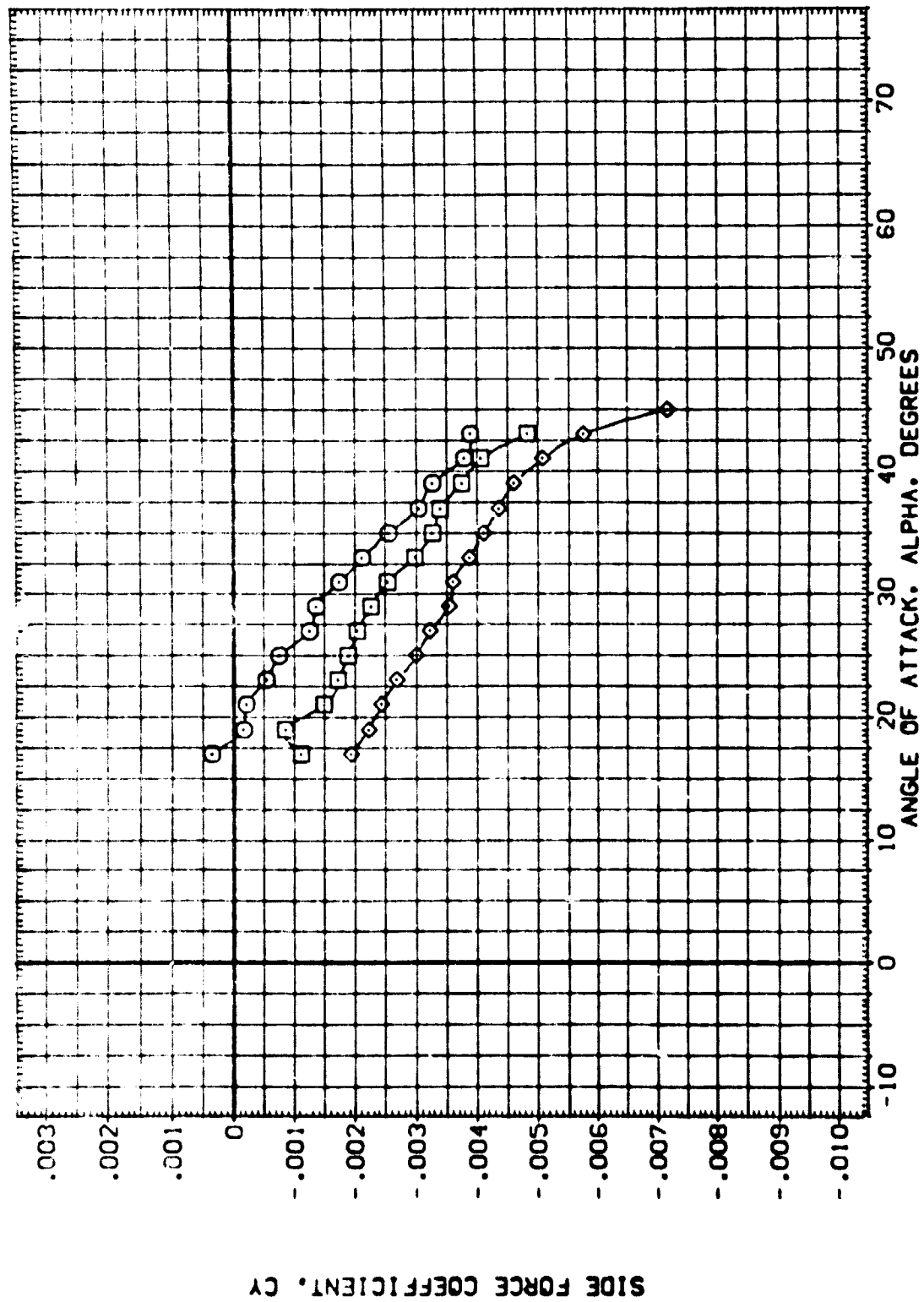


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A)MACH = 7.90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RAVL	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(ATV050)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	.500	16.300	20.000	20.000	SREF 2630.0000 SQ.FT.
(ATV053)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	1.860	16.300	20.000	20.000	LREF 474.8100 IN.
(ATV021)	0A79 B26 C9 E43 F8 H16 N28 R5 V8 V116	3.530	16.300	20.000	20.000	BREF 936.6800 IN.
						XTRP 1076.0000 IN.
						YTRP 375.0000 IN.
						ZTRP 375.0000 IN.
						SCALE .0150

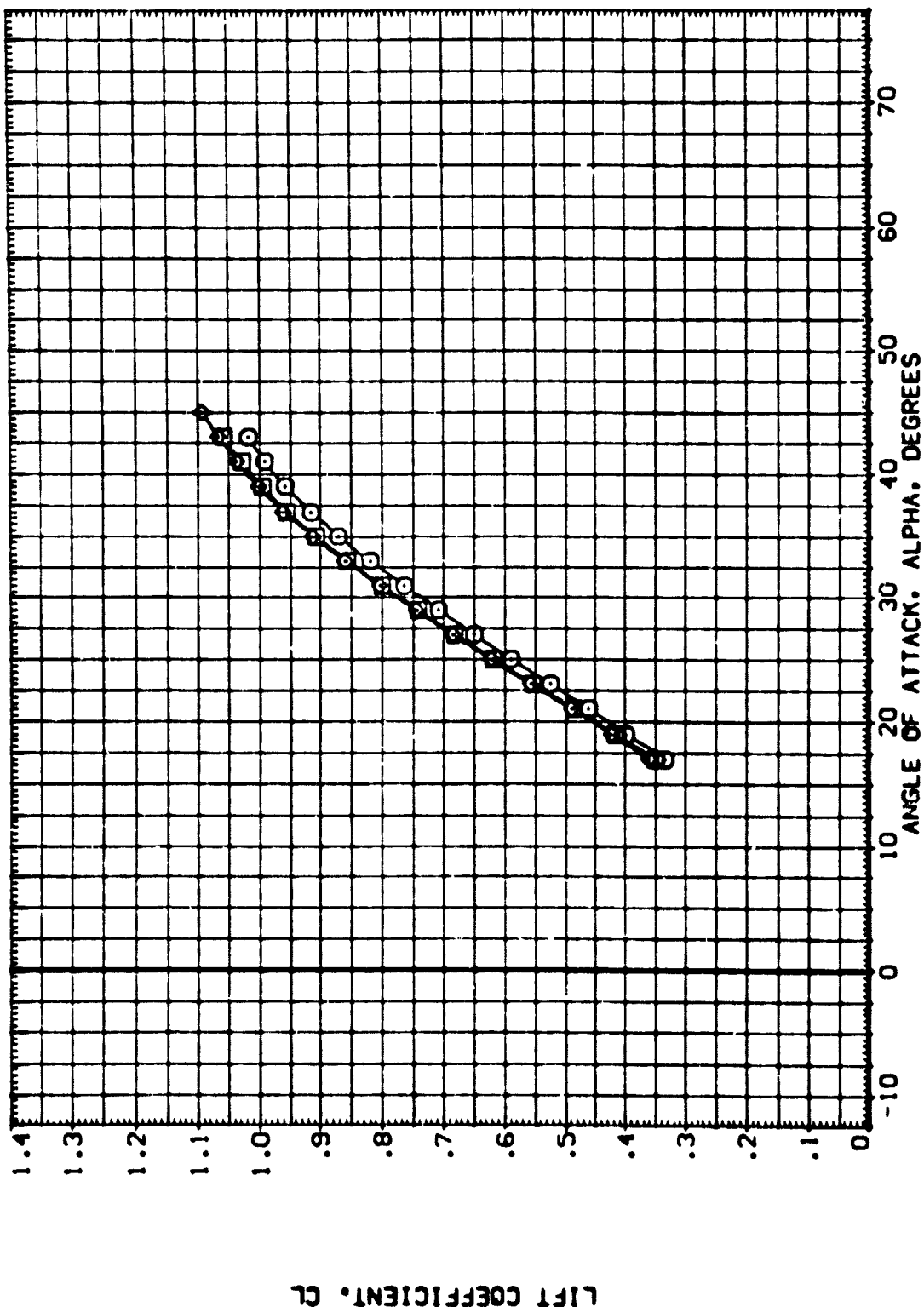


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A) MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BD FLAP	ELV-L-0	ELV-L-1	REFERENCE INFORMATION
[ATV050]	Q479 B26 C9 E43 F8 H16 N28 R5 V8 V116	.500	16.300	20.000	20.000	SPREF 2650.0000 90.000
[ATV053]	Q479 B26 C9 E43 F8 H16 N28 R5 V8 V116	1.050	16.300	20.000	20.000	LPREF 474.8100 IN.
[ATV221]	Q479 B26 C9 E43 F8 H16 N28 R5 V8 V116	3.530	16.300	20.000	20.000	EPREF 936.6800 IN.
						MPREF 1076.6800 IN.
						MPREF 375.0000 IN.
						MPREF 375.0000 IN.
						SCALE .0150

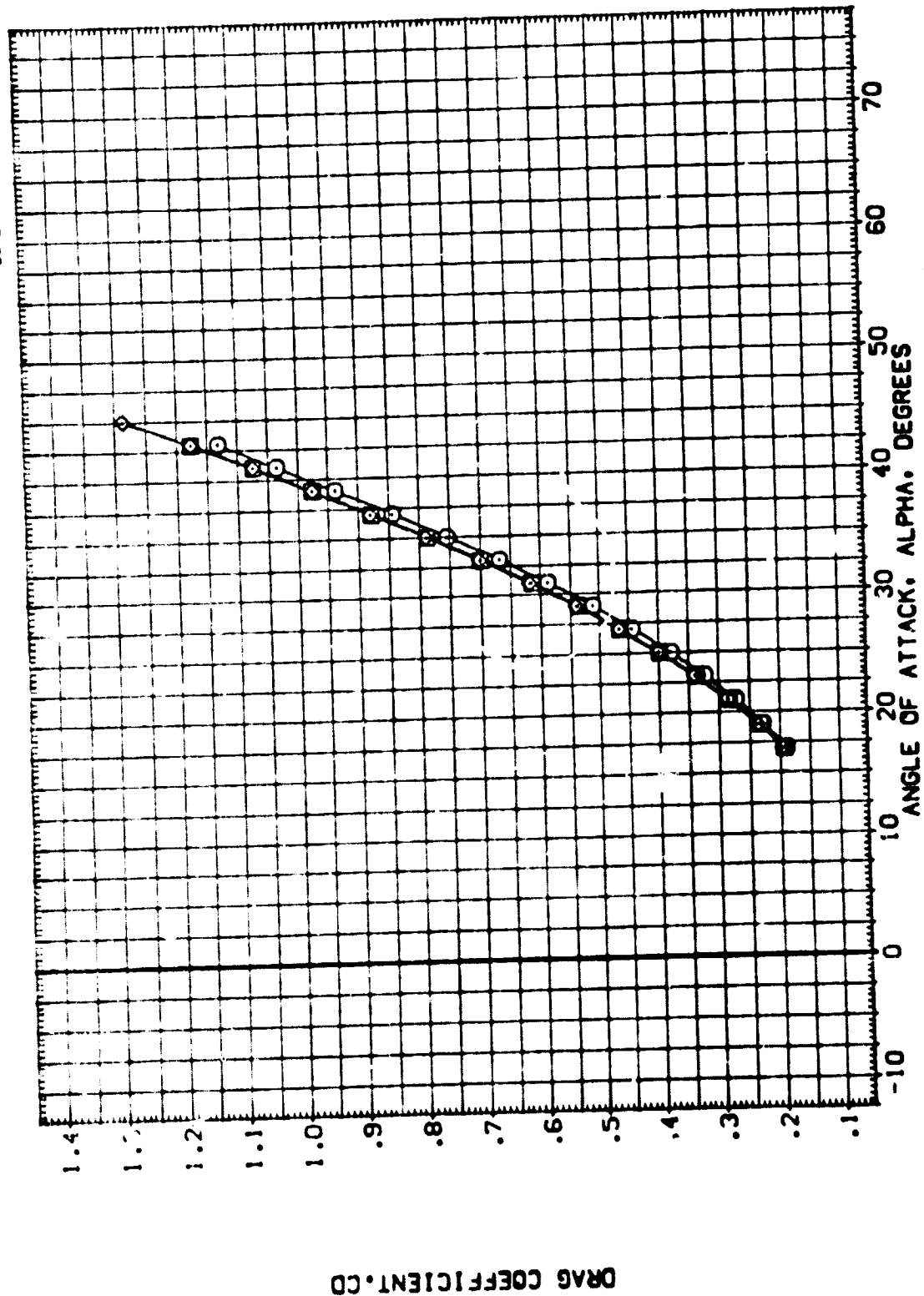


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	80 FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(ATV050)	0A79 B26 C3 E43 FB M16 N08 R5 V0 V116	.500	16.300	20.000	20.000	SREF 2690.0000 50. FT.
(ATV053)	0A79 B26 C3 E43 FB M16 N08 R5 V0 V116	1.850	16.300	20.000	20.000	LREF 474.8100 IN.
(ATV021)	0A79 B26 C3 E43 FB M16 N08 R5 V0 V116	3.530	16.300	20.000	20.000	SREF 536.6900 IN.
						XREF 1076.6800 IN. X0
						XREF 375.0000 IN. Y0
						ZREF .0150

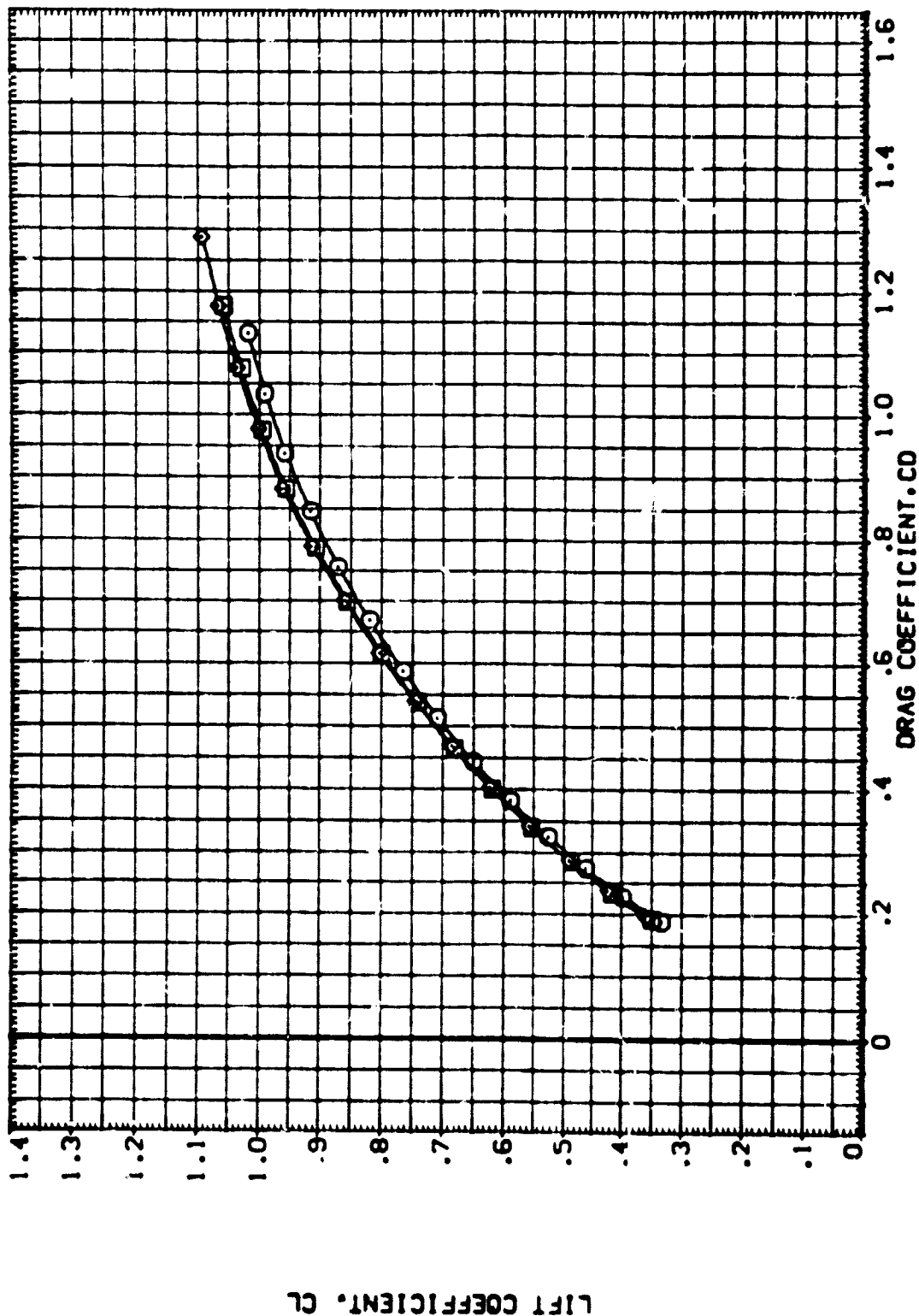


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(\*)MACH = 7.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RM/L	BD FLAP	ELV-L0	ELV-L1	REFERENCE INFORMATION
(ATV050)	CA79 B26 C9 E43 F8 M1 N28 R5 V8 V116	.500	16.300	20.000	20.000	SREF 2650.0000 SQ.FT.
(ATV053)	CA79 B26 C9 E43 F8 M1 N28 R5 V9 V116	1.850	16.300	20.000	20.000	LREF 474.810' IN.
(ATV051)	CA79 B26 C9 E43 F8 M16 N28 R5 V8 V116	3.530	16.300	20.000	20.000	BREF 936.680' IN.
						XMRP 1076.8800 IN.X0
						YMRP .0000 IN.Y0
						ZMRP .0000 IN.Z0
						SCALE .0150

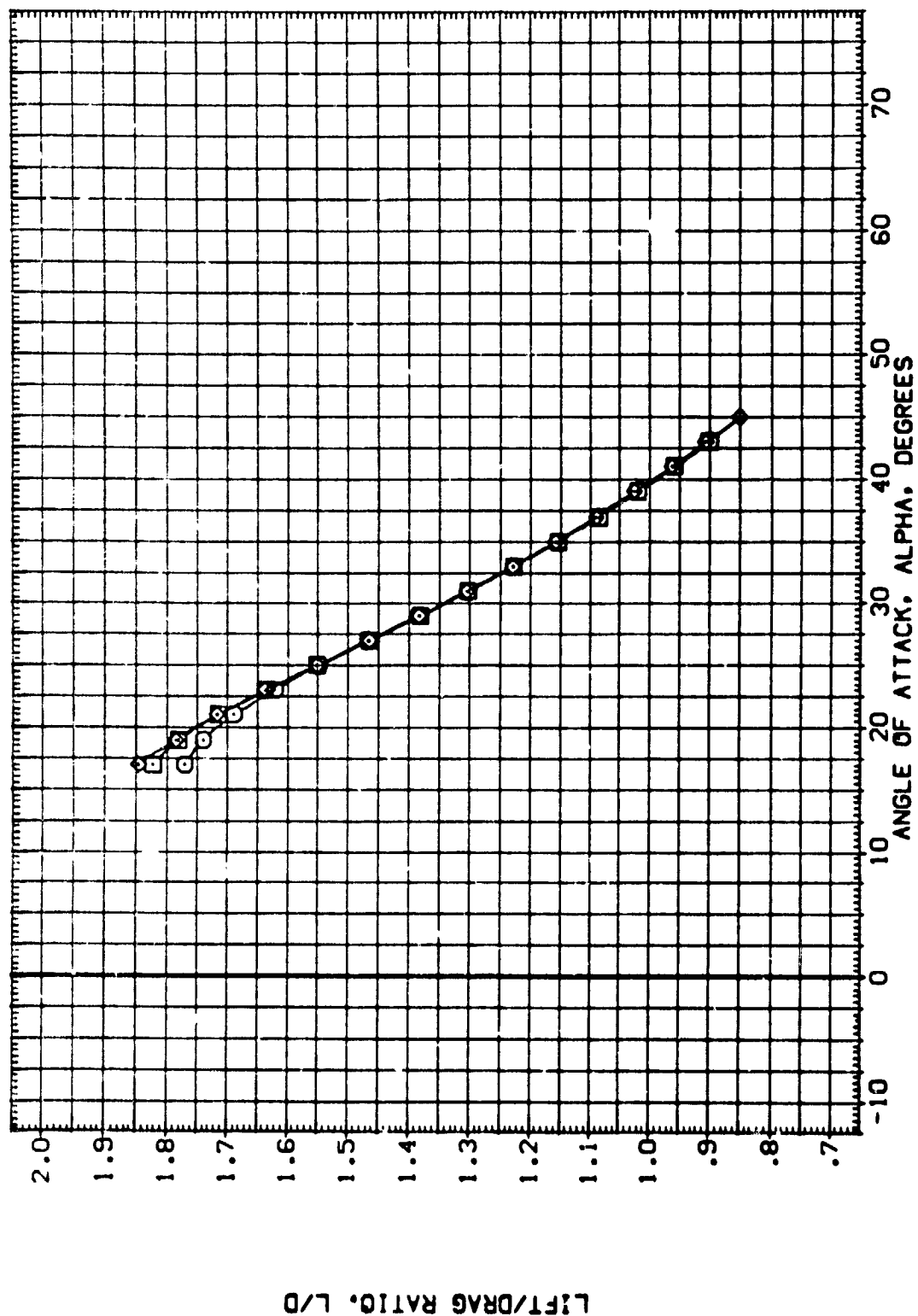


FIG. 28 REYNOLDS NUMBER EFFECTS (ELEVON = 20, BODY FLAP = 16.3)

(A)MACH = 7.90

APPENDIX  
TABULATED SOURCE DATA

Tabulations or plotted data are available on request from  
Data Management Services

DATE 19 MAR 75

TABULATED SOURCE DATA - C/M

PAGE 1

C/M 826 C9 E43 F8 M16 M28 R5 V8 M16

JRTW031 ( 18 OCT 74 )

## REFERENCE DATA

SREF = 2000.0000 90.00 FT. XREF = 1076.0000 IN. 30  
 LREF = 474.0100 IN. YREF = .0000 IN. 00  
 DREF = 936.0000 IN. ZREF = 373.0000 IN. 20  
 SCALE = .0100

## PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BOFLAP = .000  
 SFORM = 55.000 RUOGER = .000  
 RW/L = 3.330

RUN NO. 106/ 0 RW/L = 3.34 GRADIENT INTERVAL = 15.00/ 25.00

MAOH	ALPHA	CN	CAF	CLMF	CT	CYN	CBL	CAB	XCP/L	CLF	COF
0.000	17.000	.31011	.03353	-.00335	-.00006	.00017	-.00034	.00223	.65406	.28091	.14186
0.000	19.000	.37510	.03301	-.00291	-.00104	.00009	-.00037	.00223	.63272	.33723	.17502
0.000	21.000	.44447	.03402	-.00207	-.00147	.00011	-.00051	.00223	.63225	.39559	.20972
0.000	23.000	.51608	.03406	-.00164	-.00100	.00020	-.00055	.00223	.63319	.45407	.25172
0.000	25.000	.59332	.03413	-.00163	-.00112	.00005	-.00056	.00223	.63393	.51406	.29980
0.000	27.000	.67303	.03520	-.00099	-.00157	.00017	-.00075	.00223	.63536	.57533	.35909
0.000	29.000	.75635	.03644	-.00137	-.00104	.00022	-.00080	.00223	.63661	.63413	.41603
0.000	31.000	.84232	.03747	-.00189	-.00197	-.00003	-.00064	.00223	.63772	.69241	.48308
0.000	33.000	.92911	.03725	-.00220	-.00006	-.00006	-.00064	.00223	.63894	.74804	.55404
0.000	35.000	1.01540	.03623	-.00230	-.00271	.00020	-.00064	.00223	.63914	.80196	.63010
0.000	37.000	1.10900	.03552	-.03496	-.00266	-.00026	-.00064	.00223	.66151	.85292	.71224
0.000	39.000	1.20000	.03494	-.04203	-.00288	-.00032	-.00067	.00223	.66280	.89842	.79622
0.000	41.000	1.29000	.03406	-.04954	-.00300	-.00029	-.00074	.00223	.66404	.93864	.88759
0.000	43.000	1.38000	.03320	-.05713	-.00311	-.00014	-.00079	.00223	.66515	.97563	.97998
0.000	45.000	1.46900	.03108	-.06515	-.00331	.00007	-.00083	.00223	.66623	1.00290	1.07520
0.000	GRAOIENT	.03541	.00007	-.00036	-.00012	-.00001	-.00003	.00000	.00001	.02927	.01973

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UTW002 ( 18 OCT 74 )

CA 79 B26 C9 E43 F8 M16 N28 R5 V8 W16

## REFERENCE DATA

SURF = 2000.0000 94.00 FT.    ZMRP = 1076.0000 IN. NO  
 LREF = 474.8100 IN.    YMRP = .0000 IN. Y0  
 BREF = 936.6000 IN.    ZMRP = 375.0000 IN. Z0  
 SCALE = .0190

RUN NO. 110/ 0    RM/L = 3.53    GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CN	CAF	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	-5.003	.42968	.05737	-.00381	.04024	.00639	.00630	.00230	.63314	.38282	.20338
0.000	-3.039	.43357	.05998	-.00393	.02376	.00425	.00354	.00229	.63321	.38091	.20330
0.000	-1.014	.43337	.05537	-.00384	.00742	.00162	.00068	.00221	.63298	.38098	.20278
0.000	.029	.43392	.05557	-.00334	-.00114	.00028	-.00070	.00219	.63271	.38739	.20322
0.000	1.035	.43356	.05535	-.00381	-.00849	-.00096	-.00192	.00220	.63311	.38716	.20285
0.000	3.080	.43325	.05582	-.00419	-.02464	-.00351	-.00464	.00222	.63343	.39672	.20315
0.000	5.120	.43313	.05721	-.00394	-.04253	-.00374	-.00758	.00223	.63327	.38807	.20490
GRADIENT		-.00004	-.00002	.00003	-.00786	-.00126	-.00132	-.00001	.00004	-.00002	-.00005

CA 79 B26 C9 E43 F8 M16 N28 R5 V8 W16

(RTW003) ( 18 OCT 74 )

## REFERENCE DATA

SURF = 2000.0000 94.00 FT.    ZMRP = 1076.0000 IN. NO  
 LREF = 474.8100 IN.    YMRP = .0000 IN. Y0  
 BREF = 936.6000 IN.    ZMRP = 375.0000 IN. Z0  
 SCALE = .0190

RUN NO. 111/ 0    RM/L = 3.53    GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CN	CAF	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	-5.099	.88076	.05872	-.01819	.03076	.00621	.00771	.00165	.65769	.70921	.49131
0.000	-3.034	.86541	.05626	-.01880	.01538	.00363	.00377	.00185	.65791	.71425	.49192
0.000	-1.021	.88763	.05586	-.01899	.00097	.00090	-.00003	.00180	.65797	.71647	.49252
0.000	.005	.88039	.05542	-.01907	-.00645	-.00054	-.00006	.00176	.65799	.71732	.49257
0.000	1.024	.88037	.05531	-.01903	-.01361	-.00192	-.00095	.00175	.65798	.71734	.49290
0.000	3.065	.88682	.05576	-.01863	-.02817	-.00477	-.00770	.00177	.65783	.71554	.49207
0.000	5.096	.88414	.05756	-.01823	-.04375	-.00734	-.01157	.00171	.65768	.71243	.49244
GRADIENT		.00021	-.00015	.00002	-.00712	-.00137	-.00188	-.00001	-.00001	.00003	.00002



DATE 19 MAR 75

TABULATED SOURCE DATA - CA 79

PAGE 3

CA 79 826 C9 E43 F8 M16 N28 R5 V8 M16

(RTW034) ( 18 OCT 74 )

## REFERENCE DATA

SREF = 2990.0000 30. FT. ZMRP = 1076.6000 IN. NO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0190

## PARAMETRIC DATA

ALPHA = 20.000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BOFLAP = .000  
 SPOBRK = 55.000 RUDDER = -10.000  
 RM/L = 3.590

RUN NO. 112/ 0 RM/L = 3.52 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CAP	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	-5.106	.42943	.05617	-.00363	.03921	.00662	.00606	.00233	.65315	.38303	.20251
0.000	-3.100	.42992	.05518	-.00367	.02331	.00456	.00342	.00234	.65302	.38383	.20137
0.000	-1.049	.43143	.05532	-.00272	.00634	.00213	.00031	.00223	.65220	.38514	.20214
0.000	-.026	.43299	.05540	-.00276	-.00148	.00089	-.00084	.00222	.65222	.38616	.20264
0.000	1.003	.43231	.05489	-.00342	-.00090	-.00064	-.00200	.00220	.65279	.38614	.20198
0.000	3.056	.43190	.05554	-.00308	-.02520	-.00332	-.00472	.00225	.65290	.38559	.20234
0.000	5.066	.43140	.05723	-.00193	-.04322	-.00356	-.00771	.00228	.65193	.38447	.20387
	GRADIENT	.00033	.00003	.00005	-.00784	-.00129	-.00131	-.00002	-.00005	.00031	.00013

## REFERENCE DATA

SREF = 2990.0000 30. FT. ZMRP = 1076.6000 IN. NO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YO  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0190

## PARAMETRIC DATA

ALPHA = 30.000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BOFLAP = .000  
 SPOBRK = 55.000 RUDDER = -10.000  
 RM/L = 3.590

CA 79 826 C9 E43 F8 M16 N28 R5 V8 M16

(RTW035) ( 18 OCT 74 )

RUN NO. 113/ 0 RM/L = 3.52 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CAP	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	-5.099	.86103	.05631	-.01815	.02981	.00651	.00763	.00184	.65767	.71057	.48952
0.000	-3.016	.86516	.05524	-.01846	.01421	.00380	.00380	.00184	.65777	.71477	.49055
0.000	-1.011	.86726	.05476	-.01837	.00017	.00105	-.00019	.00183	.65771	.71670	.49140
0.000	.009	.86775	.05470	-.01803	-.00732	-.00031	-.00213	.00180	.65768	.71712	.49165
0.000	1.037	.86766	.05478	-.01812	-.01420	-.00120	-.00404	.00179	.65760	.71699	.49160
0.000	3.046	.86584	.05527	-.01757	-.02858	-.00450	-.00779	.00179	.65738	.71515	.49121
0.000	5.099	.86248	.05631	-.01671	-.04406	-.00710	-.01166	.00176	.65704	.71379	.49052
	GRADIENT	.00012	.00004	.00014	-.00703	-.00136	-.00187	-.00001	-.00006	.00007	.00011

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UTW006 ( 10 OCT 74 )

0470 026 C9 E43 F0 H06 R5 V0 W116

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BDFAP = .000  
 SPOBEM = 55.000 RUDDER = .000  
 RM/L = 3.950

REFERENCE DATA

WAVE = 2000.0000 50.00 FT. WAVE = 1070.0000 IN. RO  
 LREF = 474.0100 IN. YREF = .0000 IN. YO  
 BREF = 936.0000 IN. ZREF = 375.0000 IN. ZO  
 SCALE = .0191

RUN NO. 1147 0 RM/L = 3.95 GRADIENT INTERVAL = 15.00/ 25.00

WAVE	ALPHA	CN	CAF	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	.32391	.03247	-.00332	-.000265	.00010	-.00044	.00101	.65308	.29442	.14486
0.000	19.000	.30762	.03316	-.00367	-.00118	.00001	-.00048	.00101	.65337	.34920	.17646
0.000	21.000	.45674	.03370	-.00399	-.00147	-.00007	-.00050	.00101	.65311	.40713	.21309
0.000	23.000	.55744	.03445	-.00390	-.00167	-.00010	-.00054	.00101	.65337	.46700	.25738
0.000	25.000	.61906	.03514	-.00373	-.00175	-.00011	-.00061	.00101	.65429	.52569	.30807
0.000	27.000	.64572	.03578	-.00393	-.00173	-.00020	-.00069	.00101	.65323	.58563	.36101
0.000	29.000	.70043	.03623	-.00361	-.00231	-.00076	-.00078	.00101	.65643	.64482	.42172
0.000	31.000	.83316	.03663	-.00390	-.00243	-.00078	-.00086	.00101	.65781	.70215	.48797
0.000	33.000	.94131	.03700	-.00391	-.00269	-.00078	-.00087	.00101	.65928	.75041	.56048
0.000	35.000	1.03170	.03714	-.00394	-.00286	-.00010	-.00087	.00101	.66082	.81173	.63815
0.000	37.000	1.12170	.03666	-.00368	-.00309	-.00027	-.00089	.00101	.66205	.86165	.72049
0.000	39.000	1.21210	.03621	-.00402	-.00320	-.00036	-.00093	.00101	.66328	.90661	.80649
0.000	41.000	1.30190	.03525	-.00400	-.00335	-.00036	-.00093	.00101	.66445	.94630	.89582
0.000	43.000	1.39190	.03410	-.003913	-.00369	-.00031	-.00094	.00101	.66556	.98071	.98060
0.000	45.000	1.47990	.03271	-.00379	-.00401	-.00020	-.00112	.00101	.66663	1.00920	1.06370
GRADIENT		.03535	.00733	-.00744	-.00711	-.00003	-.00702	.00000	.00704	.02904	.02017

DATE 19 MAR 75

TABULATED SOURCE DATA - 0476

PAGE 5

0476 B26 C9 E43 F8 N26 R3 V8 W116

(RTUD07) (18 OCT 74)

## REFERENCE DATA

MAOP = 2000.0000 50.00 FT. MAOP = 1076.6000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0100

## PARAMETRIC DATA

ALPHA = 20.0000 ELV-LO = .0000  
 ELV-LI = .0000 ELV-RI = .0000  
 ELV-RO = .0000 BDFLAP = .0000  
 SPOBRK = 55.0000 RUDDER = .0000  
 RM/L = 3.530

RUN NO. 115/ 0 RM/L = 3.55 GRADIENT INTERVAL = -5.00/ 5.00

MAOP	BETA	CN	CAP	CLAP	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	-5.111	.43901	.03383	-.03313	.03518	.00874	.00390	.00225	.63252	.38912	.20178
0.000	-3.075	.43635	.03294	-.03326	.02749	.00580	.00340	.00225	.63263	.39082	.20134
0.000	-1.039	.43604	.03290	-.03319	.00802	.00227	.00379	.00225	.63257	.39039	.20132
0.000	-.002	.43603	.03287	-.03333	-.00719	.00335	-.00339	.00225	.63268	.39103	.20178
0.000	1.059	.43465	.03282	-.03351	-.00685	-.00166	-.00156	.00225	.63285	.38916	.20087
0.000	3.082	.43517	.03272	-.03375	-.02105	-.00487	-.00418	.00225	.63303	.38953	.20104
0.000	5.139	.43320	.03336	-.03356	-.03643	-.00824	-.00666	.00224	.63290	.38790	.20088
GRADIENT		-.00024	-.00003	-.00008	-.00667	-.00172	-.00122	-.00000	.00007	-.00002	-.00011

0476 B26 C9 E43 F8 N26 R3 V8 W116

(RTUD08) (18 OCT 74)

## REFERENCE DATA

MAOP = 2000.0000 50.00 FT. MAOP = 1076.6000 IN. X0  
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6000 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0100

## PARAMETRIC DATA

ALPHA = 30.0000 ELV-LO = .0000  
 ELV-LI = .0000 ELV-RI = .0000  
 ELV-RO = .0000 BDFLAP = .0000  
 SPOBRK = 55.0000 RUDDER = .0000  
 RM/L = 3.530

RUN NO. 116/ 0 RM/L = 3.54 GRADIENT INTERVAL = -5.00/ 5.00

MAOP	BETA	CN	CAP	CLAP	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	-5.790	.86497	.03907	-.01865	.02828	.00654	.00784	.00189	.65785	.71468	.49037
0.000	-3.750	.86775	.03436	-.01873	.01970	.00343	.00394	.00184	.65786	.71737	.49128
0.000	-1.013	.86936	.03411	-.01888	.00106	.00038	.00002	.00181	.65790	.71882	.49194
0.000	.023	.86779	.03405	-.01976	-.00635	-.00066	-.00211	.00176	.65798	.71946	.49229
0.000	1.031	.86874	.03404	-.01904	-.01311	-.00204	-.00401	.00173	.65797	.71914	.49214
0.000	3.090	.86828	.03423	-.01891	-.02884	-.00515	-.00781	.00174	.65793	.71773	.49163
0.000	5.090	.86822	.03431	-.01851	-.04104	-.00820	-.01151	.00176	.65779	.71491	.49038
GRADIENT		.00010	-.00002	-.00003	-.00684	-.00136	-.00192	-.00002	.00001	.00007	.00006

CA 75 828 CB E43 F8 M7 4008 RS 40 W16

(UTL0000) ( 10 OCT 74 )

## REFERENCE DATA

REF = 2000.0000 50. FT.    RORP = 1076.0000 IN. RO  
 LREF = 476.8100 IN.    YREF = .0000 IN. YO  
 BREF = 936.0000 IN.    ZREF = 374.0000 IN. ZO  
 SCALE = .7197

## PARAMETRIC DATA

BETA = .000    ELV-LO = .000  
 ELV-LI = .000    ELV-RI = .000  
 ELV-RO = .000    RDLAP = .000  
 SPOBR = 58.000    RUDDER = .000  
 RM/L = 3.530

RUL NO. 117/ 0    RM/L = 3.51    GRADIENT INTERVAL = 15.00/ 25.00

WAVE	ALPHA	CN	CAF	CLAF	CY	CYN	COL	CAB	KCP/L	CLF	COF
0.770	17.770	.31200	.05345	-.00463	-.00201	.00022	-.00046	.00226	.65500	.20340	.14284
0.770	19.770	.37757	.05303	-.00410	-.00224	.00017	-.00053	.00229	.65306	.33947	.17382
0.770	21.770	.44790	.05446	-.00434	-.00241	.00010	-.00057	.00229	.65349	.39007	.21114
0.770	23.770	.52714	.05496	-.00514	-.00278	.00011	-.00067	.00229	.65332	.43732	.25383
0.770	25.770	.59576	.05557	-.00694	-.00274	.00003	-.00066	.00229	.65418	.51443	.30214
0.770	27.770	.67577	.05508	-.00971	-.00390	.00005	-.00076	.00229	.65518	.57679	.35699
0.770	29.770	.75855	.05650	-.01379	-.00315	.00006	-.00080	.00229	.65625	.63603	.41716
0.770	31.770	.84345	.05497	-.01759	-.00315	-.00007	-.00089	.00229	.65749	.69364	.48325
0.770	33.770	.93109	.05735	-.02285	-.00330	-.00009	-.00089	.00229	.65893	.75731	.55564
0.770	35.770	1.11200	.05735	-.02890	-.00370	-.00008	-.00094	.00229	.66031	.80472	.63346
0.770	37.770	1.27350	.05735	-.03561	-.00397	-.00007	-.00100	.00229	.66169	.85439	.71525
0.770	39.770	1.42350	.05605	-.04262	-.00416	-.00002	-.00102	.00229	.66295	.89955	.80159
0.770	41.770	1.56300	.05617	-.05115	-.00429	-.00029	-.00107	.00229	.66418	.93953	.89114
0.770	43.770	1.69300	.05970	-.05794	-.00422	-.00029	-.00111	.00229	.66533	.97445	.98400
0.770	45.770	1.81200	.05379	-.06555	-.00466	-.00018	-.00116	.00229	.66630	1.00320	1.07930
0.770	47.770	1.92500	.05727	-.07126	-.00510	-.00002	-.00133	.00229	.66770	1.02920	1.15996

GRADIENT

DATE 19 MAR 75

TABULATED SOURCE DATA - CA 75

PAGE 7

CA 75 B26 C6 E43 F6 M7 N80 R5 V6 W116

(RTW010) (18 OCT 74)

## REFERENCE DATA

MEF = 2000.0000 80-FT. WARP = 1076.6000 IN. NO  
 REF = 474.8100 IN. WARP = .0000 IN. YO  
 REF = 936.6000 IN. WARP = 375.0000 IN. ZO  
 SCALE = .0197

## PARAMETRIC DATA

ALPHA = 50.000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BOFLAP = .000  
 SPOOR = 55.000 RUDDER = .000  
 RW/L = 3.590

RUN NO. 1187 U RW/L = 3.51 GRADIENT INTERVAL = -5.00/ 5.00

MECH	BETA	CAF	CLF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	-5.107	.43569	-.07376	.03900	.00746	.03440	.07231	.65927	.36979	.20381
0.000	-3.067	.05487	-.07355	.02271	.00482	.07373	.07230	.65287	.36988	.20303
0.000	-1.023	.05456	-.07335	.00636	.00213	.07367	.07222	.65271	.39325	.20314
0.000	.43726	.05456	-.07349	-.00102	.00732	-.07347	.07222	.65282	.39388	.20343
0.000	1.033	.05431	-.07359	-.00337	-.00116	-.07372	.07222	.65290	.39377	.20295
0.000	3.084	.05456	-.07393	-.02491	-.00379	-.07459	.07225	.65320	.39301	.20308
0.000	5.103	.05531	-.07503	-.04257	-.00658	-.07734	.07226	.65310	.39371	.20453
0.000	GRADIENT	.07701	-.07702	-.00768	-.00142	-.00134	-.00001	.00006	.00001	-.00000

CA 75 B26 C6 E43 F6 M7 N80 R5 V6 W116

(RTW011) (18 OCT 74)

## REFERENCE DATA

MEF = 2000.0000 80-FT. WARP = 1076.6000 IN. NO  
 REF = 474.8100 IN. WARP = .0000 IN. YO  
 REF = 936.6000 IN. WARP = 375.0000 IN. ZO  
 SCALE = .0197

## PARAMETRIC DATA

ALPHA = 20.000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BOFLAP = .000  
 SPOOR = 55.000 RUDDER = .000  
 RW/L = 3.590

RUN NO. 1187 U RW/L = 3.52 GRADIENT INTERVAL = -5.00/ 5.00

MECH	BETA	CAF	CLF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	-5.093	.46982	-.01821	.00972	.00609	.00770	.00181	.65765	.71802	.49158
0.000	-3.024	.05463	-.01833	.01403	.00338	.00366	.00180	.65775	.71878	.49257
0.000	-1.081	.05404	-.01876	-.00007	.00007	-.00008	.00178	.65784	.72012	.49308
0.000	.07131	.05403	-.01896	-.00755	-.00048	-.00212	.00175	.65792	.72047	.49297
0.000	1.049	.05403	-.01896	-.01935	-.00183	-.00412	.00174	.65792	.72022	.49280
0.000	3.075	.05463	-.01843	-.02942	-.00485	-.00778	.00172	.65772	.71778	.49177
0.000	5.127	.05463	-.01829	-.04498	-.00749	-.01175	.00171	.65769	.71515	.49078
0.000	GRADIENT	-.07719	.07704	-.00714	-.00135	-.00189	-.00001	-.00000	-.00014	-.00013

CATH 826 C8 E43 F8 H16 H88 R5 W8 M16

UTWD121 ( 10 OCT 74 )

## REFERENCE DATA

DEEP = 2000.0000 IN. FT. WARP = 10/6.0000 IN. 20  
 LEEP = 4/4.0000 IN. WARP = .0000 IN. 10  
 DEEP = 936.0000 IN. WARP = 3/5.0000 IN. 20  
 SCALE = .0159

## PARAMETRIC DATA

BETA = .0000 ELV-L0 = .0000  
 ELV-L1 = .0000 ELV-R1 = .0000  
 ELV-R0 = .0000 BOP-LAP = -11.700  
 SPOOR = 55.0000 RUDDER = .0000  
 RM/L = 3.550

RUN NO. 187/ 0 RM/L = 3.54 GRADIENT INTERVAL = 15.00/ 25.00

NOCH	ALPHA	CM	CAP	CLAP	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.773	17.773	.33083	.05436	.00460	-.00202	.00013	-.00049	.00217	.64465	.30042	.14093
0.773	19.773	.39976	.05433	.00356	-.00210	.00002	-.00033	.00217	.64465	.33309	.17933
0.773	21.773	.49643	.05436	.00350	-.00233	-.00006	-.00035	.00217	.64564	.40933	.21500
0.773	23.773	.53031	.05490	.00335	-.00239	-.00010	-.00031	.00217	.64743	.46609	.25702
0.773	25.773	.60312	.05336	.00199	-.00233	-.00025	-.00037	.00217	.64869	.52913	.30591
0.773	27.773	.60324	.05399	.00225	-.00241	-.00034	-.00065	.00217	.64970	.50335	.30037
0.773	29.773	.64665	.05433	-.00195	-.00200	-.00025	-.00063	.00217	.65084	.64147	.41900
0.773	31.773	.64667	.05645	-.00326	-.00271	-.00024	-.00095	.00217	.65219	.60666	.40445
0.773	33.773	.63293	.05630	-.00927	-.00287	-.00010	-.00107	.00217	.65334	.75119	.55903
0.773	35.773	1.02707	.05679	-.01472	-.00321	-.00013	-.00114	.00217	.65497	.80475	.63140
0.773	37.773	1.11723	.05562	-.01933	-.00361	-.00009	-.00117	.00217	.65639	.83321	.71250
0.773	39.773	1.27700	.05520	-.02547	-.00371	-.00020	-.00109	.00217	.65772	.89023	.79030
0.773	41.773	1.29773	.05430	-.03176	-.00393	-.00033	-.00114	.00217	.65906	.93791	.86737
0.773	43.773	1.37093	.05315	-.03024	-.00403	-.00032	-.00120	.00217	.66013	.97196	.97901
0.773	45.773	1.46690	.05166	-.04462	-.00427	-.00023	-.00124	.00217	.66111	1.00000	1.07303
0.773	60.000	.05430	.00317	-.00037	-.00004	-.00005	-.00001	.00000	.00000	.00000	.00000

DATE 10 MAR 75

TABULATED SOURCE DATA - C/M

UTW013) ( 18 OCT 74 )

C/M 826 C8 E43 F8 M16 N28 R5 V8 W18

REFERENCE DATA

ALT = 7000.0000 30.00 FT. CORP = 10.16.0000 IN. RO  
REF = 4.4.0100 IN. VAMP = .0000 IN. VC  
DATE = 030.0000 IN. ZAMP = 375.0000 IN. ZO  
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
ELV-LI = .000 ELV-HI = .000  
ELV-RO = .000 BOFLAP = 18.000  
SPOOR = 55.000 RUGGER = .000  
RWL = 3.500

RUN NO. 121/0 RWL = 3.55 GRADIENT INTERVAL = 15.00/ 25.00

WAVE	ALPHA	CN	CAP	CLAP	CT	CTM	CSL	CAB	KCPAL	CLF	COF
0.000	17.000	.32535	.05781	-.01530	-.07206	.00013	-.00000	.00216	.67177	.29443	.19047
0.001	19.000	.30531	.04900	-.02208	.00126	.00003	-.00056	.00216	.67137	.35455	.18451
0.002	21.000	.46517	.06072	-.02632	-.00144	-.00002	-.00057	.00216	.67235	.41438	.22411
0.003	23.000	.34630	.06196	-.03446	-.00140	-.00022	-.00049	.00216	.67310	.47875	.27032
0.004	25.000	.62670	.06370	-.04042	-.00171	-.00037	-.00057	.00216	.67365	.54031	.32233
0.005	27.000	.70000	.06349	-.04624	-.00186	-.00029	-.00065	.00216	.67393	.60206	.38027
0.006	29.000	.70307	.06711	-.05257	-.00215	-.00021	-.00064	.00216	.67427	.66193	.44353
0.007	31.000	.80143	.06815	-.05925	-.00224	-.00016	-.00067	.00216	.67464	.72044	.51239
0.008	33.000	.90170	.06906	-.06672	-.00236	-.00009	-.00070	.00216	.67520	.77656	.58665
0.009	35.000	1.00290	.07043	-.07468	-.00243	-.00003	-.00073	.00216	.67577	.83087	.66607
0.010	37.000	1.10500	.07199	-.08335	-.00253	.00001	-.00075	.00216	.67646	.88025	.75151
0.011	39.000	1.20790	.07354	-.09253	-.00263	.00011	-.00077	.00216	.67720	.92503	.84055
0.012	41.000	1.30000	.07504	-.10130	-.00273	.00025	-.00078	.00216	.67776	.96435	.93309
0.013	43.000	1.40000	.07659	-.11071	-.00283	.00025	-.00078	.00216	.67822	.99761	1.02790
0.014	45.000	1.50000	.07813	-.11987	-.00293	.00030	-.00078	.00216	.67877	1.02900	1.12590
0.015	47.000	1.60000	.07973	-.12868	-.00303	.00035	-.00078	.00216	.67928	.00002	.00149



ON 70 026 C0 E43 F0 M16 N00 R5 W0 M16

UTMD14) ( 10 OCT 74 )

## REFERENCE DATA

WAVE = 2000.0000 20.0000 WARP = 10.0000 10.0000  
 REF = 0.0000 0.0000 10.0000 10.0000 WARP = 10.0000 10.0000  
 REF = 0.0000 0.0000 10.0000 10.0000 WARP = 10.0000 10.0000  
 SCALE = 0.0000

## PARAMETRIC DATA

BETA = 0.0000 ELV-LO = 0.0000  
 ELV-HI = 0.0000 ELV-RI = 0.0000  
 ELV-RO = 0.0000 RDLAP = 0.0000  
 SPOBEM = 0.0000 RUDDER = 0.0000  
 RM/L = 0.0000

RUN NO. 1227 0 RM/L = 0.0000 GRADIENT INTERVAL = 15.0000 25.0000

WAVE	ALPHA	CN	CAP	CLMF	CV	CYN	CBL	CAN	KCP/L	CLF	COF
0.0000	17.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	18.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	19.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	20.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	21.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	22.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	23.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	24.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	25.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	26.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	27.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	28.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	29.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	30.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	31.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	32.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	33.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	34.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	35.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	36.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	37.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	38.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	39.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	40.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	41.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	42.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	43.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	44.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	45.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	46.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	47.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	48.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	49.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	50.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

GRADIENT

## NEW LINE OF DATA

1941	1000.000	10.00	1000.000	10.00
1942	1000.000	10.00	1000.000	10.00
1943	1000.000	10.00	1000.000	10.00
1944	1000.000	10.00	1000.000	10.00
1945	1000.000	10.00	1000.000	10.00

## PARAMETRIC DATA

BETA	0.000	ELV-O	-20.000
ELV-L	-20.000	ELV-R	-20.000
ELV-CO	-20.000	BDF-LAP	.000
SPOON	55.000	RUGGER	.000
RVL	3.500		

RUN NO. 123/0 RVL = 3.55 GRADIENT INTERVAL = 15.07/25.07

MACRO	ALPHA	CM	CAP	CLAP	CY	CYN	CBL	CAB	KCP/L	CLF	COP
0.777	1.7.777	29.587	75.581	77706	-77778	77710	77714	77715	68728	2.6642	1.3966
0.777	18.777	75.741	75756	77756	-77765	-77771	77720	777215	63951	31000	1.6636
0.777	21.777	42.689	75.625	77725	-77721	77721	77731	777215	63927	3.7631	2.7478
0.777	23.777	68.612	75.626	77726	-77724	-77724	77746	777215	68755	43475	2.4564
0.777	24.777	56.699	75.664	77726	-77756	-77745	77746	777215	64151	49129	2.9159
0.777	27.777	64.636	75.755	77735	-77762	-77746	77745	777215	64215	54825	3.4336
0.777	29.777	72.687	75.752	77737	-77766	-77745	77745	777215	64290	57012	4.0765
0.777	31.777	80.715	75.774	77737	-77782	-77754	77741	777215	64406	59068	4.6314
0.777	33.777	88.756	75.763	77745	-77755	-77741	77752	777215	64779	71197	5.3127
0.777	35.777	97.798	75.802	77757	-77759	-77745	77759	777215	64614	76242	6.0355
0.777	37.777	1.77777	75.657	77767	-77778	-77752	77778	777215	64749	86154	6.8736
0.777	39.777	1.14275	75.578	77757	-77782	-77768	77756	777215	64877	89378	7.6256
0.777	41.777	1.22787	75.625	77715	-77759	-77768	77755	777215	64908	89378	8.0645
0.777	43.777	1.31287	75.652	-77745	-77766	-77768	77755	777215	65197	92474	9.3567
0.777	45.777	1.39687	75.664	-77765	-77774	-77766	77725	777215	65271	93161	1.02325
68.001E+1		73.627	77711	77767	-77777	-77777	77734	-77777	77716	93822	77797

04 70 020 00 243 70 016 020 01 10 0410

(10 OCT 74)

01/08/2007

1607	•	897.7773	m.	1076.0020	m.	20
1608	•	474.0171	m.	1089	•	
1609	•	930.0071	m.	1090	•	.7273 m. 70
1610	•			1091	•	378.7773 m. 20
1611	•					.7197

## PARAMETRIC DATA

ALPHA	0.000	0.000	0.000
ALPHA-1	0.000	0.000	0.000
ALPHA-2	0.000	0.000	0.000
ALPHA-3	0.000	0.000	0.000
ALPHA-4	0.000	0.000	0.000
ALPHA-5	0.000	0.000	0.000
ALPHA-6	0.000	0.000	0.000
ALPHA-7	0.000	0.000	0.000
ALPHA-8	0.000	0.000	0.000
ALPHA-9	0.000	0.000	0.000
ALPHA-10	0.000	0.000	0.000
ALPHA-11	0.000	0.000	0.000
ALPHA-12	0.000	0.000	0.000
ALPHA-13	0.000	0.000	0.000
ALPHA-14	0.000	0.000	0.000
ALPHA-15	0.000	0.000	0.000
ALPHA-16	0.000	0.000	0.000
ALPHA-17	0.000	0.000	0.000
ALPHA-18	0.000	0.000	0.000
ALPHA-19	0.000	0.000	0.000
ALPHA-20	0.000	0.000	0.000
ALPHA-21	0.000	0.000	0.000
ALPHA-22	0.000	0.000	0.000
ALPHA-23	0.000	0.000	0.000
ALPHA-24	0.000	0.000	0.000
ALPHA-25	0.000	0.000	0.000
ALPHA-26	0.000	0.000	0.000
ALPHA-27	0.000	0.000	0.000
ALPHA-28	0.000	0.000	0.000
ALPHA-29	0.000	0.000	0.000
ALPHA-30	0.000	0.000	0.000
ALPHA-31	0.000	0.000	0.000
ALPHA-32	0.000	0.000	0.000
ALPHA-33	0.000	0.000	0.000
ALPHA-34	0.000	0.000	0.000
ALPHA-35	0.000	0.000	0.000
ALPHA-36	0.000	0.000	0.000
ALPHA-37	0.000	0.000	0.000
ALPHA-38	0.000	0.000	0.000
ALPHA-39	0.000	0.000	0.000
ALPHA-40	0.000	0.000	0.000
ALPHA-41	0.000	0.000	0.000
ALPHA-42	0.000	0.000	0.000
ALPHA-43	0.000	0.000	0.000
ALPHA-44	0.000	0.000	0.000
ALPHA-45	0.000	0.000	0.000
ALPHA-46	0.000	0.000	0.000
ALPHA-47	0.000	0.000	0.000
ALPHA-48	0.000	0.000	0.000
ALPHA-49	0.000	0.000	0.000
ALPHA-50	0.000	0.000	0.000
ALPHA-51	0.000	0.000	0.000
ALPHA-52	0.000	0.000	0.000
ALPHA-53	0.000	0.000	0.000
ALPHA-54	0.000	0.000	0.000
ALPHA-55	0.000	0.000	0.000
ALPHA-56	0.000	0.000	0.000
ALPHA-57	0.000	0.000	0.000
ALPHA-58	0.000	0.000	0.000
ALPHA-59	0.000	0.000	0.000
ALPHA-60	0.000	0.000	0.000
ALPHA-61	0.000	0.000	0.000
ALPHA-62	0.000	0.000	0.000
ALPHA-63	0.000	0.000	0.000
ALPHA-64	0.000	0.000	0.000
ALPHA-65	0.000	0.000	0.000
ALPHA-66	0.000	0.000	0.000
ALPHA-67	0.000	0.000	0.000
ALPHA-68	0.000	0.000	0.000
ALPHA-69	0.000	0.000	0.000
ALPHA-70	0.000	0.000	0.000
ALPHA-71	0.000	0.000	0.000
ALPHA-72	0.000	0.000	0.000
ALPHA-73	0.000	0.000	0.000
ALPHA-74	0.000	0.000	0.000
ALPHA-75	0.000	0.000	0.000
ALPHA-76	0.000	0.000	0.000
ALPHA-77	0.000	0.000	0.000
ALPHA-78	0.000	0.000	0.000
ALPHA-79	0.000	0.000	0.000
ALPHA-80	0.000</		

ROW NO. 124/0      QWL = 3.34      CRADLEIT INTERVAL = -3.00/ 3.00

NaOH	Ca	CaF	CLWP	CV	CVI	CHL	CAB	MCPL	CLF	COF
0.793	-0.1893	-0.0606	-0.1214	-0.0403	-0.00824	-0.0058	-0.0207	-0.0012	-0.0000	-1.9937
0.793	-0.1860	-0.0731	-0.1102	-0.0394	-0.00701	-0.00567	-0.0217	-0.0035	-0.0003	-1.9937
0.793	-0.181	-0.0658	-0.1235	-0.0283	-0.0136	-0.0151	-0.0214	-0.0095	-0.0032	-1.9760
0.793	-0.193	-0.073	-0.1322	-0.0399	-0.0313	-0.0303	-0.0210	-0.016	-0.0037	-1.9711
0.793	-0.185	-0.0800	-0.1334	-0.0310	-0.0316	-0.0306	-0.0232	-0.0030	-0.0031	-1.9604
0.793	-0.1812	-0.0642	-0.1276	-0.0239	-0.0376	-0.0329	-0.0231	-0.0035	-0.0046	-1.9726
0.793	-0.1244	-0.0769	-0.1317	-0.0235	-0.0301	-0.0309	-0.0233	-0.0035	-0.0043	-1.9776
60.01247	-0.2343	-0.0313	-0.0916	-0.0766	-0.0126	-0.0116	-0.0007	-0.0015	-0.0030	-0.0030

DATE 19 MAR 75

TABULATED SOURCE DATA - CAP

PAGE 13

CA 75 826 C9 E43 P6 M16 M20 R5 V6 M16

(RTN017) ( 18 OCT 74 )

REFERENCE DATA

MEF = 2897.0000 90.00 FT. 1000 P = 1076.6000 IN. NO  
 LREF = 474.8100 IN. 1000 P = .0000 IN. VO  
 MEF = 936.6000 IN. 1000 P = 379.0000 IN. ZO  
 SCALE = .0197

PARAMETRIC DATA

BETA = .000 ELV-LO = 10.000  
 ELV-LI = 10.000 ELV-RI = 10.000  
 ELV-RO = 10.000 BDFAP = .000  
 SPOBRK = 55.000 RUDDER = .000  
 RN/L = 3.500

RUN NO. 123/ 0 RN/L = 3.52 GRADIENT INTERVAL = 15.00/ 25.00

MAON	ALPHA	CN	CAP	CLMP	CY	CYN	COL	CAB	XCP/L	CLF	CDF
0.000	17.000	.34017	.05922	-.02390	-.00181	.00077	-.00126	.00212	.67907	.30799	.15809
0.000	18.000	.40663	.06105	-.02630	-.00195	.00076	-.00140	.00212	.67368	.36480	.19011
0.000	21.000	.48154	.06211	-.02991	-.00232	.00078	-.00146	.00212	.67274	.42730	.23055
0.000	23.000	.56047	.06330	-.03496	-.00223	.00082	-.00151	.00212	.67266	.49118	.27726
0.000	25.000	.64025	.06469	-.04004	-.00223	.00084	-.00168	.00212	.67291	.55284	.32940
0.000	27.000	.72341	.06648	-.04569	-.00255	.00089	-.00182	.00212	.67314	.61436	.38766
0.000	29.000	.80955	.06901	-.05197	-.00286	.00086	-.00200	.00212	.67353	.67907	.45196
0.000	31.000	.89773	.06928	-.05909	-.00289	.00094	-.00229	.00212	.67413	.73380	.52174
0.000	33.000	.98844	.07335	-.06680	-.00307	.00121	-.00243	.00212	.67478	.79066	.59734
0.000	35.000	1.08190	.07123	-.07537	-.00332	.00142	-.00243	.00212	.67556	.84905	.67866
0.000	37.000	1.17970	.07213	-.08490	-.00361	.00156	-.00251	.00212	.67632	.89497	.76472
0.000	39.000	1.26790	.07320	-.09349	-.00375	.00154	-.00251	.00212	.67705	.93924	.85477
0.000	41.000	1.34040	.07370	-.10280	-.00406	.00158	-.00256	.00212	.67772	.97839	.94815
0.000	43.000	1.43140	.07374	-.11196	-.00436	.00188	-.00266	.00212	.67830	1.01120	1.04380
0.000	45.000	1.53990	.07337	-.12125	-.00469	.00183	-.00270	.00212	.67890	1.03670	1.14040
0.000	GRADIENT	.03770	.00068	-.00211	-.00006	-.00002	-.00005	-.00000	-.00006	.00001	.00169

(RTN018) (18 OCT 74)

CA 75 826 C9 E43 F8 M16 M28 R15 W8 M16

REFERENCE DATA

SECT = 2000.0000 20.00 FT. MWP = 1076.6600 IN. NO  
 LREF = 474.8100 IN. YREF = .0000 IN. Y0  
 SECT = 936.6600 IN. ZREF = 375.0000 IN. Z0  
 SCALE = .0100

PARAMETRIC DATA

ALPHA = .000 ELV-LO = 15.000  
 ELV-LI = 10.000 ELV-HI = 15.000  
 ELV-RO = 10.000 BOFLAP = .000  
 SPOBOK = 55.000 RUDDER = .000  
 RWL = 3.500

RUN NO. 126/ 0 RWL = 3.52 GRADIENT INTERVAL = -3.00/ 5.00

NAME	BETA	CN	CAP	CLAP	CT	CYN	CBL	CAB	KCP/L	CLP	PDF
0.000	-5.094	.91331	.08995	-.05699	.02996	.00767	.00690	.00145	.67366	.74919	.52700
0.000	-3.010	.91665	.06675	-.05978	.01434	.00484	.00240	.00143	.67391	.75205	.52778
0.000	-1.025	.91867	.04765	-.06005	.00766	.00210	-.00121	.00147	.67397	.75496	.52780
0.000	.074	.91868	.04699	-.05997	-.00667	.00094	-.00324	.00147	.67393	.75546	.52737
0.000	1.031	.91850	.04660	-.05993	-.01394	-.00049	-.00321	.00145	.67393	.75521	.52732
0.000	3.089	.91634	.04726	-.05922	-.02832	-.00335	-.00002	.00142	.67370	.75509	.52636
0.000	5.122	.91242	.04640	-.05810	-.04384	-.00579	-.01303	.00141	.67335	.74910	.52538
GRADIENT		-.00009	-.00026	.00009	-.00001	-.00133	-.00186	-.00000	-.00003	.00004	-.00025

DATE 19 MAR 75

TABULATED SOURCE DATA - ON 75

PAGE 15

ON 75 828 C9 E43 F8 M16 M28 R5 V8 M16

(RTM018) (18 OCT 74)

## REFERENCE DATA

MEF = 2690.0000 36.57, MSEP = 1076.6600 IN. MO  
 LREF = 474.8100 IN. YSEP = .0000 IN. YO  
 BREF = 936.6900 IN. ZSEP = 375.0000 IN. ZO  
 SCALE = .0190

## PARAMETRIC DATA

BETA = .000 ELV-LO = 20.000  
 ELV-LI = 20.000 ELV-RI = 20.000  
 ELV-RO = 20.000 8DFLAP = .000  
 SPORRM = 55.000 RUDDER = .000  
 RM/L = 3.530

RUN NO. 127/0 RM/L = 3.55 GRADIENT INTERVAL = 15.00/25.00

WAOH	ALPHA	CN	CAF	CLMF	CY	CYN	CEB	CAB	XCP/L	CLF	CDF
0.000	17.000	-36561	.07756	-.06443	-.00180	.00110	-.00163	.00210	.71135	.34809	.16691
0.000	19.000	-49905	.09105	-.07304	-.00214	.00116	-.00177	.00210	.70667	.40765	.22609
0.000	21.000	-54166	.08345	-.07753	-.00253	.00121	-.00190	.00210	.70256	.47576	.27202
0.000	23.000	-62186	.06690	-.06592	-.00280	.00130	-.00206	.00210	.70073	.53044	.32305
0.000	25.000	-70573	.05047	-.06351	-.00306	.00140	-.00230	.00210	.69866	.60137	.38024
0.000	27.000	-79109	.04420	-.06217	-.00332	.00157	-.00246	.00210	.69739	.66263	.44335
0.000	29.000	-88094	.03780	-.06108	-.00355	.00160	-.00263	.00210	.69631	.72507	.51262
0.000	31.000	-97241	.11112	-.05770	-.00378	.00195	-.00270	.00210	.69550	.78144	.58751
0.000	33.000	-106500	.10384	-.05661	-.00398	.00219	-.00279	.00210	.69501	.83730	.66756
0.000	35.000	-116090	.10649	-.05609	-.00429	.00240	-.00289	.00210	.69457	.88983	.75307
0.000	37.000	-125550	.10890	-.05532	-.00466	.00251	-.00299	.00210	.69427	.93751	.84244
0.000	39.000	-134910	.11111	-.05460	-.00499	.00259	-.00319	.00210	.69393	.97652	.93336
0.000	41.000	-144290	.11279	-.05382	-.00532	.00270	-.00339	.00210	.69370	1.01570	1.03100
0.000	43.000	-153570	.11422	-.05261	-.00560	.00297	-.00377	.00210	.69367	1.04520	1.13090
0.000	45.000	-163310	.11508	-.05095	-.00608	.00390	-.004613	.00210	.69469	1.07420	1.23820
0.000	GRADIENT	-.0015	.00199	-.00366	-.00016	.00005	-.00078	-.00000	-.00157	.00207	.02410

ORIGINAL PAGE IS  
 CONTAINED IN THIS SET

DATE 10 MAR 75

TABULATED SOURCE DATA - ON 79

PAGE 16

ON 79 826 C9 E43 F8 M16 M28 R3 W8 M16

UTM020) ( 18 OCT 74 )

## REFERENCE DATA

XREF = 2000.0000 30.00  
 YREF = 476.8100 IN.  
 ZREF = 936.6000 IN.  
 SCALE = .0100

## PARAMETRIC DATA

BETA = .0000 ELV-LO = 20.0000  
 ELV-LI = 20.0000 ELV-RI = 20.0000  
 ELV-RO = 20.0000 BOP-LAP = .0000  
 SPODER = 55.0000 RLODER = .0000  
 RM/L = 3.550

RUN NO. 128/ 0 RM/L = 3.55 GRADIENT INTERVAL = 15.00/ 25.00

WCH	ALPHA	CM	CAF	CLF	CY	CYN	ORL	CAB	KCP/L	CLF	COF
0.000	17.000	.40302	.07979	-.06319	-.00222	.00145	-.00197	.00063	.70732	.36399	.19472
0.000	19.000	.40064	.08273	-.06933	-.00239	.00131	-.00212	.00063	.70315	.42732	.23470
0.000	21.000	.39864	.08567	-.07695	-.00261	.00122	-.00222	.00063	.70043	.49270	.28789
0.000	23.000	.39423	.08894	-.08491	-.00290	.00109	-.00243	.00063	.69842	.55829	.33380
0.000	25.000	.38882	.09234	-.09264	-.00319	.00087	-.00264	.00063	.69671	.62133	.39182
0.000	27.000	.38146	.09575	-.10114	-.00342	.00070	-.00284	.00063	.69555	.68331	.45582
0.000	29.000	.37349	.09903	-.11038	-.00353	.00052	-.00293	.00063	.69471	.74318	.52517
0.000	31.000	.36403	.10211	-.11997	-.00359	.00034	-.00304	.00063	.69425	.80118	.60032
0.000	33.000	.35480	.10499	-.13010	-.00364	.00023	-.00314	.00063	.69390	.85583	.68097
0.000	35.000	.34620	.10781	-.14073	-.00369	.00017	-.00322	.00063	.69371	.90707	.76651
0.000	37.000	.33840	.10997	-.15115	-.00370	.00012	-.00322	.00063	.69350	.95320	.85599
0.000	39.000	.33160	.11196	-.16160	-.00369	.00006	-.00323	.00063	.69338	.99321	.94835
0.000	41.000	.32580	.11355	-.17232	-.00369	.00003	-.00323	.00063	.69334	1.02780	1.04390
0.000	43.000	.32110	.11529	-.18436	-.00368	.00001	-.00323	.00063	.69364	1.05690	1.14290
0.000	45.000	.31700	.11737	-.20106	-.00374	.00001	-.00323	.00063	.69476	1.08470	1.25030
0.000	GRADIENT	.30354	.00137	-.00371	-.00312	.00000	-.00323	.00000	-.00130	.03227	.02464

DATE 10 MAR 75

TABULATED SOURCE DATA - OAM

PAGE 17

CA 75 826 C9 E43 F8 H16 N28 R5 V8 M16

(RTW021) (10 OCT 74)

# REFERENCE DATA

WAVE = 2000.000 IN. WAVE = 1076.660 IN. NO  
 LREF = 474.8100 IN. WAVE = .0000 IN. NO  
 WAVE = 936.6600 IN. WAVE = 375.0000 IN. NO  
 SCALE = .0100

# PARAMETRIC DATA

BETA = .000 ELV-LO = 80.000  
 ELV-L1 = 20.000 ELV-R1 = 80.000  
 ELV-RO = 20.000 BOP-LAP = 16.000  
 SPOKER = 55.000 RUDDER = .000  
 RNL = 3.500

RUN NO. 189/0 RNL = 3.55 GRADIENT INTERVAL = 15.00/25.00

WAVE	ALPHA	CN	CAP	CLMP	CY	CYN	COL	CAB	KCP/L	CLP	COF
0.000	17.000	.40325	.07936	-.07923	-.00193	.00133	-.00175	.00221	.72219	.36242	.19381
0.000	19.000	.47820	.08424	-.09083	-.00222	.00144	-.00191	.00221	.71976	.42460	.23536
0.000	21.000	.54106	.09074	-.10247	-.00244	.00144	-.00199	.00221	.71709	.49191	.28421
0.000	23.000	.64593	.09350	-.11976	-.00266	.00191	-.00223	.00221	.71345	.55799	.33832
0.000	25.000	.73363	.09836	-.12672	-.00301	.00172	-.00247	.00221	.71346	.62331	.39921
0.000	27.000	.82362	.10335	-.13684	-.00322	.00182	-.00259	.00221	.71193	.68693	.46000
0.000	29.000	.91402	.10796	-.15083	-.00334	.00203	-.00273	.00221	.71036	.74777	.53796
0.000	31.000	1.00807	.11246	-.16376	-.00361	.00213	-.00277	.00221	.70843	.80690	.61599
0.000	33.000	1.10420	.11645	-.17561	-.00347	.00236	-.00283	.00221	.70762	.86264	.69903
0.000	35.000	1.20093	.12023	-.18832	-.00411	.00257	-.00287	.00221	.70601	.91476	.78750
0.000	37.000	1.29790	.12353	-.20060	-.00436	.00270	-.00292	.00221	.70411	.96188	.87990
0.000	39.000	1.39310	.12681	-.21276	-.00460	.00266	-.00294	.00221	.70260	1.00260	.97326
0.000	41.000	1.48760	.12934	-.22466	-.00510	.00279	-.00310	.00221	.70149	1.03770	1.07370
0.000	43.000	1.58190	.13187	-.23609	-.00576	.00298	-.00349	.00221	.70022	1.06700	1.17530
0.000	45.000	1.68370	.13371	-.24680	-.00716	.00344	-.00398	.00221	.70556	1.09460	1.28390
0.000	GRADIENT	.04142	.00237	-.00596	-.00013	.00004	-.00079	.00000	-.00109	.03275	.02370

PAGE 18  
 QUALITY



0479 B26 C6 E43 F6 M16 M26 M35 M45 M56

UTWZ222 ( 18 OCT 74 )

## REFERENCE DATA

BREF = 2000.0000 00.00.00  
 LREF = 474.0100 14.00.00  
 SREF = 936.0000 14.00.00  
 SCALE = .0100

## PARAMETRIC DATA

BETA = .000 ELV-LO = 20.000  
 ELV-LI = 20.000 ELV-HI = .000  
 ELV-RO = .000 ROP-LAP = .000  
 SPOBKE = 55.000 RUDDER = .000  
 RWL = 3.500

RUN NO. 130/ 0 RWL = 3.56 GRADIENT INTERVAL = 15.00/ 25.00

MOON	ALPHA	CN	CAF	CLAF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	.34978	.06396	-.03056	.00200	-.00364	.00928	.00207	.68202	.31579	.16343
0.000	19.000	.41976	.06399	-.03432	.00196	-.00449	.01036	.00207	.67997	.37540	.19906
0.000	21.000	.49794	.06022	-.03904	.00200	-.00500	.01142	.00207	.67915	.43368	.23962
0.000	23.000	.56864	.06078	-.04322	.00222	-.00562	.01233	.00207	.67786	.49617	.28642
0.000	25.000	.64029	.07136	-.04811	.00239	-.00642	.01311	.00207	.67720	.55750	.33804
0.000	27.000	.71147	.07331	-.05339	.00229	-.00692	.01366	.00207	.67676	.61837	.39758
0.000	29.000	.81640	.07324	-.05947	.00194	-.00730	.01431	.00207	.67671	.67756	.46161
0.000	31.000	.90490	.07680	-.06633	.00176	-.00771	.01518	.00207	.67696	.73610	.53189
0.000	33.000	.99336	.07812	-.07303	.00152	-.00810	.01583	.00207	.67720	.79240	.60774
0.000	35.000	1.08760	.07919	-.08218	.00128	-.00854	.01636	.00207	.67772	.84347	.68867
0.000	37.000	1.18780	.08016	-.09137	.00110	-.00896	.01684	.00207	.67815	.89480	.77453
0.000	39.000	1.27290	.08110	-.09996	.00093	-.00931	.01725	.00207	.67854	.93789	.86384
0.000	41.000	1.36470	.08149	-.10779	.00075	-.00968	.01750	.00207	.67898	.97649	.95683
0.000	43.000	1.45520	.08130	-.11472	-.00032	-.01013	.01772	.00207	.67931	1.00880	1.05190
0.000	45.000	1.54670	.08100	-.12066	-.00063	-.01026	.01800	.00207	.68012	1.03590	1.10040
GRADIENT		.01370	.00093	-.00220	.00005	-.00032	.00048	-.00000	-.00000	.00019	.02191

DATE 19 MAR 75  
TABULATED SOURCE DATA - OA/P  
OA/P 826 C5 E43 F6 W16 M26 R5 W6 W116  
(RTM223) (18 OCT 74)

PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
ELV-LI = -10.000 ELV-RI = -10.000  
ELV-RO = -10.000 ROP-LAP = .000  
SPOROK = 55.000 RUDDON = .000  
RM/L = 3.330

REFERENCE DATA

REF = 2997.0000 50.0000 1076.6000 IN. MO  
LREF = 474.6100 IN. YREF = .0000 IN. YO  
REF = 936.6000 IN. ZREF = 375.0000 IN. ZO  
SCALE = .0197

RUN NO. 131/ 0 RM/L = 3.34 GRADIENT INTERVAL = 15.00/ 25.00

WAVE	ALPHA	CN	CAP	CLW	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	.93276	.03482	.00000	-.00133	.00004	.00004	.00000	.64379	.27356	.14376
0.000	19.000	.93240	.03484	.00000	-.00144	-.00006	.00006	.00000	.64394	.32441	.17097
0.000	21.000	.93316	.03526	.00000	-.00143	-.00025	.00024	.00000	.64407	.38459	.20682
0.000	23.000	.93406	.03544	.00000	-.00161	-.00042	.00036	.00000	.64471	.44315	.24834
0.000	25.000	.93596	.03572	.00000	-.00169	-.00049	.00033	.00000	.64553	.50263	.29503
0.000	27.000	.93906	.03609	.00000	-.00188	-.00053	.00030	.00000	.64630	.55920	.34778
0.000	29.000	.94350	.03690	.00000	-.00203	-.00047	.00020	.00000	.64746	.61571	.40590
0.000	31.000	.94799	.03645	.00000	-.00213	-.00052	.00016	.00000	.64853	.67206	.46968
0.000	33.000	.95197	.03562	.00000	-.00233	-.00039	-.00005	.00000	.64958	.72566	.53780
0.000	35.000	.95651	.03515	-.00000	-.00235	-.00034	-.00006	.00000	.65090	.77811	.61216
0.000	37.000	1.07627	.03453	-.00000	-.00255	-.00034	-.00006	.00000	.65290	.82670	.69125
0.000	39.000	1.16480	.03509	-.00000	-.00256	-.00057	.00006	.00000	.65385	.87116	.77479
0.000	41.000	1.23197	.03263	-.00000	-.00276	-.00063	.00007	.00000	.65512	.91033	.86106
0.000	43.000	1.33670	.03993	-.00000	-.00304	-.00057	-.00007	.00000	.65632	.94436	.95026
0.000	45.000	1.42480	.04096	-.00000	-.00345	-.00043	-.00007	.00000	.65740	.97275	1.04270
0.000	47.000	.93471	.03738	.00000	-.00005	-.00007	.00004	-.00000	.00000	.02866	.01990

GRADIENT

DATE 10 MAR 75

TABULATED SOURCE DATA - CAY

PAGE 20

CAY 828 C5 E43 F8 M16 M28 M5 M6 M16

(RTM24) ( 10 OCT 74 )

## REFERENCE DATA

REF = 2000.0000 50.00 FT. MSEP = 10.00 00.00 IN. 20  
 LREF = 4.0 0.000 IN. YREF = .0000 IN. 10  
 MREF = 936.6000 IN. ZREF = 3.00 00.00 IN. 20  
 SCALE = .0100

## PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-L1 = -10.000 ELV-R1 = 10.000  
 ELV-RO = 10.000 BOPLAP = .000  
 SPOBMR = 55.000 RUDDER = .000  
 RM/L = 3.500

RUN NO. 132/ 0 RM/L = 3.54 GRADIENT INTERVAL = 15.00/ 25.00

MMON	ALPHA	CM	CAF	CLM	CY	CYN	CBL	CAB	XCP/L	CLF	COF
0.000	17.000	.32323	.05679	-.01035	-.00267	.00198	-.00991	.00203	.66108	.29251	.14881
0.000	19.000	.39345	.05002	-.01086	-.00326	.00170	-.00672	.00203	.68011	.39329	.18197
0.000	21.000	.49962	.05022	-.01380	-.00354	.00182	-.00750	.00203	.68377	.40787	.22000
0.000	23.000	.53536	.05003	-.01626	-.00402	.00203	-.00836	.00203	.66107	.46937	.26436
0.000	25.000	.61211	.06113	-.01944	-.00436	.00241	-.00933	.00203	.66159	.52882	.31409
0.000	27.000	.60380	.06221	-.02271	-.00479	.00272	-.01031	.00203	.66194	.58976	.37031
0.000	29.000	.77743	.06342	-.02669	-.00514	.00311	-.01131	.00203	.66254	.64921	.43238
0.000	31.000	.86272	.06437	-.03145	-.00534	.00336	-.01221	.00203	.66332	.70635	.49351
0.000	33.000	.94983	.06453	-.03632	-.00569	.00390	-.01329	.00203	.66406	.76147	.57145
0.000	35.000	1.03900	.06472	-.04267	-.00596	.00439	-.01427	.00203	.66501	.81468	.64945
0.000	37.000	1.13780	.06497	-.04976	-.00626	.00481	-.01503	.00203	.66611	.86384	.73229
0.000	39.000	1.22180	.06525	-.05702	-.00644	.00502	-.01562	.00203	.66759	.90826	.81946
0.000	41.000	1.31170	.06503	-.06432	-.00665	.00533	-.01622	.00203	.66802	.94727	.90985
0.000	43.000	1.40780	.06440	-.07191	-.00716	.00579	-.01683	.00203	.66881	.98036	1.00290
0.000	45.000	1.49910	.06348	-.07971	-.00717	.00618	-.01735	.00203	.66962	1.00800	1.09780
0.000	GRADIENT	.03613	.00033	-.00116	-.00019	.00010	-.00042	.00000	.00002	.00000	.00000



CAYO RES CO E43 F6 M66 M20 R5 W6 M16

(M7U0261) (10 OCT 74)

## REFERENCE DATA

REF = 2400.0000 IN. REF = 1076.0000 IN. NO  
 LAMP = 474.0100 IN. YREF = .0000 IN. NO  
 REF = 916.0000 IN. ZREF = 378.0000 IN. NO  
 SCALE = .7197

## PARAMETRIC DATA

BETA = .0000 QV-LO = -10.0000  
 QV-LI = -40.0000 QV-RI = -40.0000  
 QV-RO = -10.0000 ROP-LAP = .0000  
 SPODER = 55.0000 RUDDER = .0000  
 RM/L = 3.500

RUN NO. 134/ 0 RM/L = 3.57 GRADIENT INTERVAL = 15.00/ 25.00

WCH	ALPHA	CN	CAP	CLAP	CV	CYN	CBL	CAB	KCP/L	CLF	CDP
0.000	17.000	.29735	.05516	.00756	-.00112	.00006	.00023	.00215	.64112	.26640	.13074
0.000	19.000	.34011	.05426	.00670	-.00135	-.00020	.00020	.00215	.63996	.32217	.17044
0.000	21.000	.42017	.05006	.01073	-.00135	-.00035	.00042	.00215	.64081	.37740	.20377
0.000	23.000	.46704	.05002	.01159	-.00100	-.00046	.00045	.00215	.64132	.43615	.24037
0.000	25.000	.57336	.05756	.01276	-.00176	-.00046	.00041	.00215	.64164	.49276	.29333
0.000	27.000	.64613	.05016	.01343	-.00201	-.00033	.00040	.00215	.64225	.54929	.34516
0.000	29.000	.72444	.05006	.01346	-.00230	-.00040	.00037	.00215	.64306	.60306	.40271
0.000	31.000	.87476	.05000	.01290	-.00243	-.00036	.00041	.00215	.64397	.65930	.46530
0.000	33.000	.66717	.05020	.01222	-.00252	-.00032	.00026	.00215	.64464	.71172	.53276
0.000	35.000	.67164	.05076	.01034	-.00261	-.00033	.00024	.00215	.64571	.76202	.60371
0.000	37.000	1.05690	.05004	.00763	-.00281	-.00042	.00031	.00215	.64726	.80800	.66312
0.000	39.000	1.14190	.05676	.00464	-.00304	-.00036	.00040	.00215	.64842	.85040	.76426
0.000	41.000	1.22740	.05006	.00149	-.00316	-.00044	.00043	.00215	.64947	.88825	.84911
0.000	43.000	1.31790	.05690	-.00165	-.00335	-.00042	.00043	.00215	.65036	.91995	.93566
0.000	45.000	1.34290	.05532	-.00320	-.00346	-.00056	.00040	.00215	.65129	.94336	1.02360
0.000	GRADIENT	.03420	.00267	.00067	-.00376	-.00037	.00033	-.00230	.00212	.00014	.01916

DATE 10 MAR 75

TABULATED SOURCE DATA - C/N

PAGE 23

CALC 826 CO C43 P6 M16 M28 R3 V8 M16

RTNDR7 ( 10 OCT 74 )

## REFERENCE DATA

WAVE = 2007.0000 IN. FT. SWP = 10/16.0000 IN. MO  
 LREF = 474.0173 IN. YMRP = .0000 IN. VO  
 WAVE = 936.0000 IN. SWP = 3/16.0000 IN. ZO  
 SCALE = .0197

## PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = -.00.000 ELV-RI = -.00.000  
 ELV-RO = .000 BOFLAP = .000  
 SPOOK = 55.000 RUDDER = .000  
 RM/L = 3.530

RUN NO. 133/ 0 RM/L = 3.56 GRADIENT INTERVAL = 15.00/ 25.00

WAVE	ALPHA	CH	CAP	CLMP	CY	CYN	CHL	CAB	KCP/L	CLF	COF
0.770	17.770	.30380	.03560	.07373	-.00126	-.00009	-.00009	.00210	.64531	.27360	.14191
0.771	18.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.772	19.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.773	20.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.774	21.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.775	22.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.776	23.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.777	24.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.778	25.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.779	26.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.780	27.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.781	28.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.782	29.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.783	30.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.784	31.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.785	32.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.786	33.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.787	34.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.788	35.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.789	36.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.790	37.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.791	38.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.792	39.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.793	40.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.794	41.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.795	42.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.796	43.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.797	44.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.798	45.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.799	46.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329
0.800	47.770	.30033	.03410	.07446	-.00157	-.00010	-.00010	.00210	.64343	.33093	.17329

GRADIENT



OAM 020 CO E03 FO HIG M00 R5 VS M10

(ATMOSP) (10 OCT 74)

## REFERENCE DATA

SALS = 1000.000 IN. FT. SAMP = 1076.6000 IN. NO  
 LREF = 476.817 IN. VREF = .0000 IN. NO  
 SREF = 838.807 IN. TREF = 375.0000 IN. NO  
 SCALE = .0197

## PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = -10.000 ELV-HI = -10.000  
 ELV-RO = .000 ROP-LAP = .000  
 SPODER = 55.000 RUDDER = .000  
 RM/L = 3.550

RUN NO. 1377 0 RM/L = 3.56 GRADIENT INTERVAL = 15.00/ 25.00

MAC	ALPHA	CN	CAP	CLAP	CY	CYN	CBL	CAB	ACP/L	CLF	COF
0.000	17.000	1.0000	.05544	.00007	-.00130	.00000	-.00000	.00000	.64000	.27182	.14285
0.000	18.000	1.0000	.05553	.00000	-.00126	-.00000	-.00000	.00000	.64011	.33424	.17582
0.000	21.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64776	.50403	.21100
0.000	23.000	1.0000	.05553	.00000	-.00131	-.00000	-.00000	.00000	.64903	.45212	.25311
0.000	25.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.51071	.30704
0.000	27.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.56964	.35466
0.000	29.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.62709	.41384
0.000	31.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.68373	.47031
0.000	33.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.73811	.52793
0.000	35.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.79130	.58585
0.000	37.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.84244	.64290
0.000	39.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.89147	.70030
0.000	41.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.93801	.75790
0.000	43.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.98261	.81593
0.000	45.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.1.02500	.87396
0.000	47.000	1.0000	.05543	.00000	-.00131	-.00000	-.00000	.00000	.64903	.02980	.01976



CAY 826 C0 E43 F0 M16 M20 R5 V0 M16

(RTW30) (10 OCT 74)

## REFERENCE DATA

REF = 2000.0000 90.00  
 LREF = 474.8100 IN.  
 MREF = 936.6000 IN.  
 SCALE = .0100

BETA = .000  
 ELV-L1 = -20.000  
 ELV-R1 = -20.000  
 ELV-R0 = .000  
 SPOBKA = 55.000  
 RML = 3.330

## PARAMETRIC DATA

RUN NO. 136/0 RML = 3.33 GRADIENT INTERVAL = 15.00/ 25.00

ALPHA	CN	CAP	CLAF	CT	CYN	CSL	CAB	RCP/L	CLF	COF
0.000	17.000	.30512	.03595	-.00118	.00005	-.00020	.00213	.64756	.27543	.14271
0.000	19.000	.37037	.05613	-.00126	-.00004	-.00018	.00213	.64644	.33192	.17387
0.000	21.000	.43844	.05699	-.00145	-.00024	-.00010	.00213	.64657	.38890	.21035
0.000	23.000	.51090	.05736	-.00141	-.00035	-.00005	.00213	.64742	.44786	.25244
0.000	25.000	.58326	.05782	-.00150	-.00036	-.00015	.00213	.64776	.50599	.29975
0.000	27.000	.66266	.05831	-.00187	-.00036	-.00023	.00213	.64842	.56416	.35290
0.000	29.000	.74293	.05895	-.00215	-.00029	-.00033	.00213	.64918	.62120	.41174
0.000	31.000	.82477	.05916	-.00223	-.00034	-.00037	.00213	.65003	.67690	.47590
0.000	33.000	.90870	.05988	-.00246	-.00018	-.00037	.00213	.65092	.73004	.54429
0.000	35.000	.99672	.05966	-.00266	-.00013	-.00061	.00213	.65202	.78294	.61958
0.000	37.000	1.08390	.05815	-.00287	-.00015	-.00054	.00213	.65339	.83061	.69872
0.000	39.000	1.17140	.05759	-.00300	-.00031	-.00090	.00213	.65444	.87410	.78194
0.000	41.000	1.25770	.05654	-.00309	-.00035	-.00093	.00213	.65562	.91208	.86777
0.000	43.000	1.34390	.05579	-.00326	-.00032	-.00095	.00213	.65647	.94528	.95680
0.000	45.000	1.42880	.05533	-.00348	-.00027	-.00094	.00213	.65744	.97249	1.04790
GRADIENT		.03974	.00025	-.00005	-.00006	.00001	-.00000	.00007	.02885	.01964

DATE 10 MAR 75

TABULATED SOURCE DATA - CA 75

PAGE 27

CA 75 826 CB E43 P8 M16 N28 R5 V8 M16

(RTM031) (10 OCT 74)

## REFERENCE DATA

SREF = 2607.0770 DG.FT.    XMRP = 1076.6070 IN.YO  
 LREF = 474.8170 IN.    YMRP = .0000 IN.YO  
 BREF = 936.6070 IN.    ZMRP = 375.0770 IN.ZO  
 SCALE = .7157

## PARAMETRIC DATA

BETA = .000    ELV-LO = -5.000  
 ELV-LI = -20.000    ELV-RI = -20.000  
 ELV-RO = -5.000    RDP LAP = .000  
 SPDBRK = 55.000    RUDDER = .000  
 RM/L = 3.330

RUN NO. 1397 0    RM/L = 3.55    GRADIENT INTERVAL = 15.00/ 25.00

MAOH	ALPHA	CM	CAP	CLMP	CY	CYN	CBL	CAB	KCP/L	CLF	CDP
0.070	17.070	.92107	.05580	.00377	-.00103	.00004	-.00011	.00213	.64328	.27238	.14141
0.070	19.070	.36724	.05563	.00364	-.00112	-.00008	-.00006	.00213	.64422	.32912	.17217
0.070	21.070	.43453	.05608	.00638	-.00123	-.00028	.00002	.00213	.64448	.38937	.20808
0.070	23.070	.50643	.05681	.00671	-.00145	-.00042	.00008	.00213	.64501	.44805	.24999
0.070	25.070	.58729	.05694	.00700	-.00161	-.00043	.00001	.00213	.64546	.50186	.29685
0.070	27.070	.65743	.05790	.00691	-.00189	-.00043	-.00004	.00213	.64603	.55976	.34932
0.070	29.070	.73667	.05768	.00676	-.00210	-.00042	-.00010	.00213	.64688	.61824	.40777
0.070	31.070	.81742	.05610	.00480	-.00228	-.00045	-.00016	.00213	.64784	.67075	.47080
0.070	33.070	.90116	.05731	.00294	-.00242	-.00034	-.00036	.00213	.64871	.72445	.53904
0.070	35.070	.98743	.05694	-.00020	-.00259	-.00028	-.00043	.00213	.64999	.77619	.61301
0.070	37.070	1.07320	.05690	-.00395	-.00274	-.00030	-.00037	.00213	.65127	.82466	.69216
0.070	39.070	1.16190	.05586	-.00815	-.00284	-.00047	-.00031	.00213	.65290	.86779	.77487
0.070	41.070	1.24857	.05471	-.01277	-.00305	-.00053	-.00034	.00213	.65368	.90639	.86041
0.070	43.070	1.33380	.05309	-.01726	-.00317	-.00053	-.00039	.00213	.65468	.93915	.94837
0.070	45.070	1.41870	.05108	-.02199	-.00336	-.00048	-.00040	.00213	.65562	.96708	1.03930
0.070	47.070	.03481	.00018	.00038	-.00007	-.00006	-.00002	-.00000	.00000	.00000	.01944

DATE 19 MAR 75

TABULATED SOURCE DATA - C470

PAGE 20

C470 826 C9 E43 P8 M18 N85 R5 V8 M18

(UNW033) (18 OCT 74)

## REFERENCE DATA

REF = 2000.0000 90-PT. 200P = 1076.6000 IN. NO  
 LREF = 474.8170 IN. 100P = .0000 IN. 10  
 MREF = 936.6070 IN. 200P = 373.0000 IN. 20  
 SCALE = .0197

## PARAMETRIC DATA

BETA = .0000 BLV-LO = 10.0000  
 BLV-L1 = .0000 BLV-R1 = .0000  
 BLV-RO = 10.0000 BDFLAP = .0000  
 SPODER = 33.0000 RUDDER = .0000  
 RWL = 3.330

RUN NO. 141/0 RWL = 3.34 GRADIENT INTERVAL = 15.00/25.00

MACH	ALPHA	CN	CAF	CLMP	CV	CYN	CBL	CAB	KCP/L	CLF	COF
8.000	17.000	.32300	.05782	-.01155	-.00093	.00047	-.00102	.00210	.68298	.29284	.14968
8.000	19.000	.36936	.05895	-.01309	-.00109	.00039	-.00112	.00210	.68225	.34896	.18230
8.000	21.000	.42665	.05946	-.01501	-.00138	.00039	-.00115	.00210	.68182	.41062	.22131
8.000	23.000	.53913	.06027	-.01801	-.00160	.00028	-.00121	.00210	.68218	.47273	.26614
8.000	25.000	.61635	.06134	-.02105	-.00185	.00027	-.00139	.00210	.68246	.53266	.31807
8.000	27.000	.69756	.06234	-.02429	-.00214	.00030	-.00157	.00210	.68272	.59322	.37223
8.000	29.000	.78100	.06336	-.02800	-.00253	.00043	-.00176	.00210	.68347	.65336	.43405
8.000	31.000	.86727	.06407	-.03200	-.00265	.00048	-.00189	.00210	.68434	.71040	.50159
8.000	33.000	.95571	.06427	-.03600	-.00283	.00069	-.00215	.00210	.68516	.76432	.57442
8.000	35.000	1.04690	.06461	-.04002	-.00302	.00074	-.00221	.00209	.68637	.82051	.65340
8.000	37.000	1.13680	.06493	-.04441	-.00335	.00076	-.00228	.00210	.68750	.87941	.73721
8.000	39.000	1.23000	.06504	-.04813	-.00342	.00085	-.00236	.00210	.68841	.91499	.82464
8.000	41.000	1.32130	.06453	-.04983	-.00354	.00085	-.00246	.00210	.68931	.95445	.91554
8.000	43.000	1.41080	.06375	-.04772	-.00367	.00076	-.00254	.00210	.69017	.98815	1.00880
8.000	45.000	1.49910	.06282	-.04582	-.00410	.00069	-.00260	.00210	.69099	1.01560	1.10490
8.000	00.000	.00000	.00000	-.00112	-.00000	-.00000	-.00000	-.00000	-.00000	.00000	.00000

DATE 10 MAR 75

TABULATED SOURCE DATA - 0479

PAGE 29

0479 828 C8 E43 F8 M16 A28 R5 V8 W16

UTM034) ( 18 OCT 74 )

## REFERENCE DATA

REF = 2000.0000 36-FT. 100P = 1076.6670 IN. MO  
 LREF = 474.8100 IN. 100P = .0000 IN. 10  
 BREF = 936.6670 IN. 100P = 379.0000 IN. 20  
 SCALE = .0150

## PARAMETRIC DATA

BETA = .000 ELV-LO = -10.000  
 ELV-LI = .000 ELV-HI = .000  
 ELV-RO = -10.000 80FLAP = .000  
 SPORAR = 95.000 RUDDER = .000  
 RW/L = 3.550

RUN NO. 142/ 0 RW/L = 3.55 GRADIENT INTERVAL = 15.00/ 25.00

MAON	ALPHA	CN	CAF	CLWF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	.50700	.05526	-.00051	-.00107	.00013	-.00009	.00202	.65047	.27829	.14287
0.000	19.000	.57273	.05569	.00003	-.00112	-.00004	-.00003	.00202	.64985	.33423	.17419
0.000	21.000	.44232	.05624	-.00016	-.00136	-.00010	-.00003	.00202	.65000	.39251	.21091
0.000	23.000	.51990	.05649	-.00141	-.00167	-.00031	.00009	.00202	.65090	.45272	.25354
0.000	25.000	.59172	.05697	-.00288	-.00196	-.00032	.00001	.00202	.65169	.51250	.30179
0.000	27.000	.67317	.05737	-.00468	-.00217	-.00038	-.00004	.00202	.65247	.57108	.35537
0.000	29.000	.75229	.05790	-.00728	-.00243	-.00035	-.00013	.00202	.65347	.62969	.41536
0.000	31.000	.83594	.05834	-.01073	-.00251	-.00038	-.00017	.00202	.65463	.68643	.48029
0.000	33.000	.92189	.05756	-.01433	-.00268	-.00036	-.00034	.00202	.65571	.74181	.55037
0.000	35.000	1.01110	.05731	-.01996	-.00277	-.00026	-.00036	.00202	.65710	.79333	.62607
0.000	37.000	1.10790	.05736	-.02606	-.00310	-.00033	-.00036	.00202	.65863	.84468	.70811
0.000	39.000	1.19790	.05655	-.03240	-.00316	-.00049	-.00034	.00202	.65993	.89558	.79313
0.000	41.000	1.27950	.05555	-.03935	-.00326	-.00056	-.00041	.00202	.66124	.92918	.88132
0.000	43.000	1.36610	.05413	-.04674	-.00339	-.00049	-.00052	.00202	.66250	.96363	.97282
0.000	45.000	1.45580	.05243	-.05338	-.00358	-.00036	-.00058	.00202	.66342	.99216	1.06650
0.000	GRADIENT	.03554	.00000	-.00031	-.00012	-.00006	.00002	-.00000	.00017	.00032	.01985

DATE 10 MAR 75

TABULATED SOURCE DATA - CAY

PAGE 30

CAY 826 C8 E43 F8 M16 A88 B5 W8 M16

GMTD351 ( 10 OCT 74 )

## REFERENCE DATA

SREF = 2007.0000 90.07. 300P = 1076.6000 IN. NO  
 LREF = 474.0100 IN. 300P = .0000 IN. VO  
 BREF = 936.6000 IN. 300P = 375.0000 IN. 20  
 SCALE = .0197

## PARAMETRIC DATA

ALPHA = 30.000 ELV-LO = -10.000  
 ELV-L1 = .000 ELV-R1 = .000  
 ELV-RO = -10.000 BDFLAP = .000  
 SPOBKE = 55.000 RUDDER = .000  
 RM/L = 3.550

RUN NO. 143/ 0 RM/L = 3.53 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH	CAF	CLAF	CY	CYN	CHL	CAB	KCP/L	CLF	COF
0.000	-5.179	.08200	.05620	-.01033	.03039	.00626	.00831	.00125	.65433	.71016	.49203
0.000	-3.049	.06479	.05600	-.01068	.01312	.00339	.00449	.00144	.65447	.71273	.49183
0.000	-1.035	.06453	.05552	-.01070	.00099	.00034	.00285	.00190	.65447	.71374	.49090
0.000	-.005	.06375	.05447	-.01035	-.00845	-.00060	-.00131	.00153	.65433	.71350	.48970
0.000	1.076	.06340	.05410	-.01029	-.01366	-.00205	-.00322	.00149	.65430	.71345	.48927
0.000	3.047	.06096	.05437	-.01079	-.02827	-.00970	-.00692	.00153	.65425	.71128	.48810
0.000	5.065	.05787	.05536	-.00967	-.04356	-.00172	-.01067	.00151	.65407	.70909	.48746
GRADIENT	-.00032	-.00043	-.00043	.00011	-.00072	-.00038	-.00188	.00001	-.00004	-.00023	-.00062

UNTD0361 ( 18 OCT 74 )

CA79 B26 C0 E43 F0 H16 M00 R5 V0 W16

REFERENCE DATA

WHS = 2000.0000 50.00 FT. 10000 = 1076.0000 IN.10  
 LREF = 414.0000 IN. 10000 = 1076.0000 IN.10  
 SREF = 936.0000 IN. 10000 = 1076.0000 IN.10  
 SCALE = .0193

PARAMETRIC DATA

BETA = .0000 ELV-LO = 10.0000  
 ELV-LI = .0000 ELV-RI = .0000  
 ELV-RO = -10.0000 BOPLAP = .0000  
 SPOBWK = 35.0000 RUDDER = .0000  
 RM/L = 3.330

RUN NO. 1447 0 RM/L = 3.40 GRADIENT INTERVAL = 15.00/ 25.00

WASH	ALPHA	CH	CAF	CLMF	CY	CYM	CBL	CAB	XCP/L	CLF	COF
0.000	17.000	.31340	.05609	-.00328	-.00090	-.00061	.00262	.00207	.65803	.28522	.14505
0.000	19.000	.30175	.05606	-.00348	-.00096	-.00062	.00302	.00207	.65439	.34244	.17804
0.000	21.000	.45181	.05756	-.00601	-.00139	-.00091	.00342	.00207	.63478	.40117	.21967
0.000	23.000	.52807	.05828	-.00773	-.00196	-.00114	.00385	.00207	.63530	.46148	.25920
0.000	25.000	.60334	.05876	-.00901	-.00151	-.00143	.00422	.00207	.63588	.52187	.30823
0.000	27.000	.66319	.05932	-.01267	-.00146	-.00164	.00460	.00207	.63673	.58179	.36302
0.000	29.000	.76368	.06031	-.01613	-.00173	-.00185	.00496	.00207	.63764	.64062	.42406
0.000	31.000	.85127	.06109	-.02034	-.00207	-.00195	.00527	.00207	.63873	.69822	.49080
0.000	33.000	.93904	.06145	-.02562	-.00236	-.00195	.00551	.00207	.63995	.75407	.56297
0.000	35.000	1.02890	.06116	-.03162	-.00274	-.00204	.00560	.00207	.64122	.80773	.64025
0.000	37.000	1.11980	.06106	-.03823	-.00297	-.00222	.00567	.00207	.64248	.85780	.72271
0.000	39.000	1.21020	.06082	-.04522	-.00329	-.00239	.00563	.00207	.64367	.90222	.80891
0.000	41.000	1.30090	.06001	-.05252	-.00285	-.00258	.00562	.00207	.64478	.94215	.89632
0.000	43.000	1.39020	.05902	-.05975	-.00314	-.00273	.00564	.00207	.64575	.97585	.99042
0.000	45.000	1.47810	.05740	-.06756	-.00363	-.00280	.00569	.00207	.64674	1.00480	1.08580
0.000	GRADIENT	.05801	.05734	-.07060	-.00314	-.00310	.00563	-.00000	.00000	.02963	.02030

DATE 19 MAR 75

TABULATED SOURCE DATA - CM 75

PAGE 32

CM 75 826 CO E43 FO H16 M28 R3 W8 W416

(M7N037) ( 18 OCT 74 )

## REFERENCE DATA

WARP = 2000.0000 90.00  
 LREF = 416.8100 IN.  
 WARP = 000.0000 IN.  
 WARP = 315.0000 IN.  
 SCALE = .0150

## PARAMETRIC DATA

BETA = .0000 ELV-LO = .0000  
 ELV-LI = -10.0000 ELV-RI = -10.0000  
 ELV-RO = -20.0000 BDFLAP = .0000  
 SPOBKR = 55.0000 RUDDER = .0000  
 RM/L = 3.930

RUN NO. 145/ 0 RM/L = 3.91 GRADIENT INTERVAL = 15.00/ 25.00

WARP	ALPHA	CN	CAF	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	.90320	.05516	.00399	-.00048	-.00000	.00161	.00207	.64531	.27390	.14143
0.000	18.000	.90726	.05569	.00352	-.00068	-.00023	.00188	.00207	.64434	.32912	.17222
0.000	21.000	.91523	.05598	.00641	-.00101	-.00035	.00217	.00207	.64447	.36826	.20823
0.000	23.000	.92720	.05632	.00667	-.00131	-.00045	.00249	.00207	.64505	.44495	.25003
0.000	25.000	.94136	.05658	.00826	-.00141	-.00061	.00277	.00207	.64594	.50318	.29707
0.000	27.000	.95968	.05685	.00936	-.00146	-.00074	.00304	.00207	.64691	.56197	.35014
0.000	29.000	.97966	.05738	.00973	-.00175	-.00090	.00331	.00207	.64790	.61910	.40878
0.000	31.000	.99286	.05787	.00992	-.00197	-.00087	.00365	.00207	.64905	.67533	.47341
0.000	33.000	.99755	.05790	.00972	-.00225	-.00086	.00390	.00207	.65020	.72980	.54284
0.000	35.000	.99455	.05716	.00943	-.00264	-.00088	.00418	.00207	.65133	.78190	.61727
0.000	37.000	1.00240	.05629	.00967	-.00279	-.00094	.00448	.00207	.65288	.83054	.69653
0.000	39.000	1.00970	.05521	.00934	-.00285	-.00109	.00481	.00207	.65411	.87432	.77905
0.000	41.000	1.25680	.05396	-.01884	-.00299	-.00116	.00507	.00207	.65544	.91315	.86529
0.000	43.000	1.34420	.05233	-.02394	-.00331	-.00117	.00530	.00207	.65647	.94756	.95498
0.000	45.000	1.42990	.05040	-.02979	-.00333	-.00114	.00550	.00207	.65759	.97543	1.04670
0.000	GRADIENT	.03483	.00017	.00032	-.00012	-.00006	.00015	.00000	.00008	.02872	.01946

CATH 826 C5 E43 P8 M16 N26 R5 W6 M416

(UTW039) (10 OCT 74)

## REFERENCE DATA

REF = 2000.0000 50.00 FT. WARP = 1076.0000 IN. NO  
 LREF = 474.0100 IN. WARP = .0000 IN. NO  
 REF = 936.0000 IN. WARP = 375.0000 IN. NO  
 SCALE = .7197

## PARAMETRIC DATA

BETA = .000 ELV-LO = -20.000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = -20.000 BOFLAP = .000  
 SPODER = 55.000 RUDDER = .000  
 RWL = 3.330

RUN NO. 1467 0 RWL = 3.33 GRADIENT INTERVAL = 15.00/ 25.00

ALPHA	CN	CAP	CLAP	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	.03543	.00130	-.00000	-.00000	.00007	.00209	.64821	.27926	.14298
0.000	19.000	.03604	.00290	-.00000	-.00000	.00010	.00209	.64701	.33390	.17424
0.000	21.000	.03647	.00356	-.00136	-.00033	.00013	.00209	.64774	.39120	.21066
0.000	23.000	.03660	.00249	-.00183	-.00040	.00018	.00209	.64811	.45051	.25280
0.000	25.000	.03701	.00124	-.00175	-.00052	.00017	.00209	.64912	.50977	.30061
0.000	27.000	.03729	-.00034	-.00181	-.00062	.00015	.00209	.65020	.56906	.35425
0.000	29.000	.03764	-.00272	-.00210	-.00064	.00010	.00209	.65124	.62767	.41417
0.000	31.000	.03792	-.00375	-.00234	-.00071	.00011	.00209	.65245	.68440	.47971
0.000	33.000	.03823	-.00457	-.00267	-.00065	.00012	.00209	.65374	.73889	.55000
0.000	35.000	.03856	-.00532	-.00288	-.00062	.00006	.00209	.65514	.79215	.62591
0.000	37.000	.03890	-.00600	-.00325	-.00062	-.00009	.00209	.65644	.84097	.70596
0.000	39.000	.03903	-.00630	-.00317	-.00067	-.00013	.00209	.65777	.88582	.79037
0.000	41.000	.03904	-.00591	-.00314	-.00070	-.00018	.00209	.65902	.92476	.87813
0.000	43.000	.03907	-.00517	-.00337	-.00061	-.00023	.00209	.66023	.95900	.96910
0.000	45.000	.03909	-.00445	-.00346	-.00052	-.00026	.00209	.66123	.98726	1.06230
0.000	GRADIENT	.03916	-.00003	-.00015	-.00005	.00001	.00000	.00015	.00000	.01900

CATH 826 C5 E43 P8 M16 N26 R5 W6 M416 HEAT SOAK

(UTW039) (10 OCT 74)

## REFERENCE DATA

REF = 2000.0000 50.00 FT. WARP = 1076.0000 IN. NO  
 LREF = 474.0100 IN. WARP = .0000 IN. NO  
 REF = 936.0000 IN. WARP = 375.0000 IN. NO  
 SCALE = .7197

## PARAMETRIC DATA

ALPHA = .000 ELV-LO = -20.000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = -20.000 BOFLAP = .000  
 SPODER = 55.000 RUDDER = .000  
 RWL = 3.330

RUN NO. 1477 0 RWL = 3.34 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CAP	CLAP	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	.03543	.00130	-.00000	-.00000	.00007	.00209	.64821	.27926	.14298
0.000	19.000	.03604	.00290	-.00000	-.00000	.00010	.00209	.64701	.33390	.17424
0.000	21.000	.03647	.00356	-.00136	-.00033	.00013	.00209	.64774	.39120	.21066
0.000	23.000	.03660	.00249	-.00183	-.00040	.00018	.00209	.64811	.45051	.25280
0.000	25.000	.03701	.00124	-.00175	-.00052	.00017	.00209	.64912	.50977	.30061
0.000	27.000	.03729	-.00034	-.00181	-.00062	.00015	.00209	.65020	.56906	.35425
0.000	29.000	.03764	-.00272	-.00210	-.00064	.00010	.00209	.65124	.62767	.41417
0.000	31.000	.03792	-.00375	-.00234	-.00071	.00011	.00209	.65245	.68440	.47971
0.000	33.000	.03823	-.00457	-.00267	-.00065	.00012	.00209	.65374	.73889	.55000
0.000	35.000	.03856	-.00532	-.00288	-.00062	.00006	.00209	.65514	.79215	.62591
0.000	37.000	.03890	-.00600	-.00325	-.00062	-.00009	.00209	.65644	.84097	.70596
0.000	39.000	.03903	-.00630	-.00317	-.00067	-.00013	.00209	.65777	.88582	.79037
0.000	41.000	.03904	-.00591	-.00314	-.00070	-.00018	.00209	.65902	.92476	.87813
0.000	43.000	.03907	-.00517	-.00337	-.00061	-.00023	.00209	.66023	.95900	.96910
0.000	45.000	.03909	-.00445	-.00346	-.00052	-.00026	.00209	.66123	.98726	1.06230
0.000	GRADIENT	.03916	-.00003	-.00015	-.00005	.00001	.00000	.00015	.00000	.01900



RTN(400) ( 10 OCT 74 )

CA 75 800 C0 E43 F0 H00 H00 R5 W0 M10

REFERENCE DATA

SDCF = 2000.0000 IN. FT. W00P = 1070.0000 IN. 20  
 LAMP = 470.0100 IN. W00P = .0000 IN. 20  
 SDCF = 900.0000 IN. W00P = 370.0000 IN. 20  
 SCALE = .0100

PARAMETRIC DATA

BETA = .000 BLV-LO = .000  
 BLV-L1 = .000 BLV-H1 = .000  
 BLV-HO = .000 BOP-LAP = .000  
 SPOBKA = 55.000 RLOOGR = .000  
 RMVL = 1.000

RMVL NO. 1.00/ 0 RMVL = 1.74 GRADIENT INTERVAL = 10.00/ 25.00

RMCH	ALPHA	CH	CAP	CLAP	CY	CYN	CHL	CAB	MCP/L	CLF	COF
1.000	17.000	.90716	.05070	-.00970	-.00096	.00022	-.00023	.00102	.65993	.27076	.14934
1.000	10.000	.37025	.05634	-.00220	-.00081	.00006	-.00019	.00102	.63212	.33090	.17642
1.000	21.000	.44375	.05004	-.00306	-.00114	-.00007	-.00021	.00102	.65979	.39307	.21210
1.000	23.000	.51790	.05663	-.00345	-.00141	-.00011	-.00021	.00102	.65377	.45423	.25433
1.000	25.000	.58099	.05667	-.00371	-.00166	-.00017	-.00023	.00102	.65469	.51340	.30214
1.000	27.000	.67075	.05720	-.01014	-.00180	-.00023	-.00024	.00102	.65945	.57342	.35643
1.000	29.000	.75420	.05785	-.01347	-.00202	-.00027	-.00026	.00102	.65648	.63166	.41620
1.000	31.000	.83027	.05827	-.01739	-.00230	-.00030	-.00032	.00102	.65754	.68938	.48220
1.000	33.000	.92619	.05872	-.02243	-.00247	-.00034	-.00037	.00102	.65882	.74479	.55369
1.000	35.000	1.01610	.05874	-.02827	-.00267	-.00032	-.00043	.00102	.68016	.79866	.63094
1.000	37.000	1.10020	.05867	-.03403	-.00280	-.00036	-.00034	.00102	.66190	.84815	.71290
1.000	39.000	1.18990	.05848	-.04184	-.00301	-.00042	-.00032	.00102	.66279	.89200	.79006
1.000	41.000	1.28320	.05801	-.04943	-.00325	-.00044	-.00033	.00102	.66407	.93191	.86696
1.000	43.000	1.37070	.05745	-.05713	-.00355	-.00041	-.00031	.00102	.66522	.96572	.94910
1.000	GRADIENT	.05555	-.00311	-.00343	-.00310	-.00035	-.00033	-.00000	-.00000	.02941	.01950

(RTM0411) (10 OCT 74)

CA 78 026 C9 E43 F8 W16 M28 R5 W8 W16 PTCH/PAUSE

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BDFLAP = .000  
 SPOBCK = 55.000 RLODER = .000  
 RN/L = 1.000

REFERENCE DATA

WARP = 2000.0000 80.00 FT. WARP = 1076.0000 14.00  
 WARP = 474.0100 14.00 WARP = .0000 14.00  
 WARP = 936.0000 14.00 WARP = 375.0000 14.00  
 SCALE = .0100

RUN NO. 140/0 RN/L = 1.76 GRADIENT INTERVAL = 19.00/25.00

WARP	ALPHA	CM	CAF	CLMP	CY	CYN	CBL	CAB	HCP/L	CLF	COF
1.000	15.905	27546	.05761	-.07425	-.00060	.00000	-.00013	.00199	.65556	.24796	.12001
1.000	19.171	34925	.05729	-.07261	-.00107	.00000	-.00020	.00201	.65235	.34884	.18194
1.000	23.240	35092	.05743	-.07194	-.00111	.00000	-.00025	.00196	.65336	.47234	.26341
1.000	27.340	.00177	.05827	-.07113	-.00215	-.00000	-.00029	.00160	.65322	.59662	.37406
1.000	31.417	.07320	.05936	-.07016	-.00257	-.00000	-.00036	.00135	.65756	.71595	.50687
1.000	35.535	1.05000	.05921	-.07047	-.00288	-.00000	-.00035	.00109	.66052	.82720	.66352
1.000	39.622	1.24340	.05836	-.06975	-.00320	-.00000	-.00032	.00083	.66317	.92040	.83005
1.000	43.728	1.42590	.05680	-.06820	-.00346	-.00000	-.00033	.00043	.66575	.99114	1.02670
1.000	47.846	1.60540	.05596	-.06680	-.00372	-.00000	-.00033	.00025	.66640	1.00000	1.00000
GRADIENT	.03477	.00000	.00000	-.00012	-.00014	-.00000	-.00003	-.00000	-.00000	.02940	.01793

ORIGINAL PAGE IS  
 OF POOR QUALITY

CAP B26 C9 C43 F8 M16 M20 R5 W8 W116 SEALED CAP

UTUD421 ( 10 OCT 74 )

## REFERENCE DATA

BREF = 2000.0000 IN. FT. DREF = 1076.6000 IN. MO  
 LREF = 474.8100 IN. VREF = .0000 IN. VO  
 SREF = 936.6000 IN. ZREF = 375.0000 IN. ZO  
 SCALE = .0100

## PARAMETRIC DATA

BETA = .000 ELV-LO = -20.000  
 ELV-LI = -20.000 ELV-HI = -20.000  
 ELV-RO = -20.000 BOFLAP = .000  
 SPOOR = 55.000 RUOOR = .000  
 RM/L = 3.330

RUN NO. 157/ 0 RM/L = 3.99 GRADIENT INTERVAL = 15.00/ 25.00

WACH	ALPHA	CN	CAP	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	.20005	.05611	.00742	-.00033	-.00009	.00007	.00208	.64070	.26862	.14080
0.000	19.000	.30030	.05664	.00742	-.00072	-.00025	.00017	.00208	.63982	.32251	.17095
0.000	21.000	.42775	.05687	.01155	-.00116	-.00035	.00023	.00208	.63995	.37894	.20167
0.000	23.000	.49072	.05693	.01267	-.00137	-.00052	.00036	.00208	.64054	.43683	.24727
0.000	25.000	.57180	.05744	.01339	-.00147	-.00059	.00036	.00208	.64126	.49395	.29371
0.000	27.000	.64015	.05783	.01355	-.00171	-.00066	.00037	.00208	.64221	.55125	.34578
0.000	29.000	.72602	.05846	.01373	-.00214	-.00080	.00031	.00208	.64296	.60744	.40355
0.000	31.000	.80758	.05892	.01294	-.00235	-.00073	.00033	.00208	.64401	.66109	.46644
0.000	33.000	.89099	.05916	.01182	-.00249	-.00073	.00029	.00208	.64403	.71938	.53480
0.000	35.000	.97570	.05932	.00948	-.00284	-.00065	.00021	.00208	.64634	.76568	.60757
0.000	37.000	1.06120	.05775	.01699	-.00307	-.00073	.00017	.00208	.64753	.81272	.68474
0.000	39.000	1.14710	.05662	.01368	-.00317	-.00072	.00015	.00208	.64874	.85981	.76588
0.000	41.000	1.23280	.05527	.00995	-.00330	-.00074	.00010	.00208	.64995	.89399	.85036
0.000	43.000	1.31870	.05352	-.00739	-.00360	-.00073	.00005	.00207	.65098	.92743	.93802
0.000	45.000	1.40250	.05142	-.00789	-.00389	-.00068	-.00002	.00208	.65198	.95524	1.02600
GRADIENT		.03428	.00015	.00074	-.00013	-.00006	.00004	.00000	.00000	.02825	.01911

ORIGINAL PAGE IS  
OF POOR QUALITY

(RTM043) (10 OCT 74)

DATE 10 MAR 76 TABULATED SOURCE DATA - ON 76

ON 76 826 C6 C43 F6 M16 M20 R5 W6 M16

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BDFAP = .000  
 SPORR = 55.000 RUDDER = .000  
 RWL = 3.550

REFERENCE DATA

WARP = 2000.0000 IN. ST. WARP = 1076.0000 IN. RO  
 WARP = 474.0173 IN. WARP = .0000 IN. VO  
 WARP = 016.0073 IN. WARP = 575.0000 IN. ZO  
 SCALE = .1150

RUN NO. 1507 0 RWL = 3.55 GRADIENT INTERVAL = 15.000 25.00

ALPHA	CM	CAP	CLAP	CV	CYN	CBL	CAB	KCP/L	CLF	CDF
0.000	17.000	.05002	-.01437	-.00060	-.00003	-.00016	.00211	.63487	.29064	.14640
0.000	18.000	.05000	-.01434	-.00065	-.00014	-.00015	.00211	.63619	.34210	.17795
0.000	19.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.63476	.40645	.21551
0.000	20.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.63572	.46735	.25929
0.000	21.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.63641	.52605	.30809
0.000	22.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.63744	.58749	.35327
0.000	23.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.63800	.64774	.42490
0.000	24.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.63900	.70806	.49179
0.000	25.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.64000	.76236	.56411
0.000	26.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.64100	.81718	.64303
0.000	27.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.64200	.86741	.72546
0.000	28.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.64300	.91318	.81187
0.000	29.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.64400	.95362	.90266
0.000	30.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.64500	.98887	.99703
0.000	31.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.64600	1.01790	1.09320
0.000	32.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.64700	.02909	.02024
0.000	33.000	.05000	-.01435	-.00065	-.00014	-.00015	.00211	.64800	.00000	.00000

ORIGINAL PAGE IS  
 OF POOR QUALITY

DATE 19 MAR 75

TABULATED SOURCE DATA - ON 75

PAGE 38

ON 75 080 CO E43 F8 W16 N20 R5 W8 W16

UTM0444 ( 18 OCT 74 )

## REFERENCE DATA

REF = 2007.0000 00.00.00 REF = 1576.0000 14.00.00  
 LOGP = 474.0173 14.00.00 LOGP = 0.0000 14.00.00  
 BREF = 016.0000 14.00.00 ZREF = 375.0000 14.00.00  
 SCALE = 0.100

## PARAMETRIC DATA

BETA = 0.000 ELV-LO = 0.000  
 ELV-LI = 0.000 ELV-RI = 0.000  
 ELV-RO = 0.000 BDFLAP = 0.000  
 SPOBAM = 25.000 RUOOCN = 0.000  
 RM/L = 3.350

RUN NO. 190/0 RM/L = 3.36 GRADIENT INTERVAL = 15.00/25.00

MMON	ALPHA	CN	CAR	CLAP	CT	CVM	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	31403	03422	-03348	-00035	-00003	-00000	00000	63627	28332	14392
0.000	18.000	30744	03443	-03376	-00013	-00013	-00013	00004	63477	34106	17572
0.000	21.000	03033	03532	-03568	-00122	-00018	-00003	00004	63432	40071	21329
0.000	23.000	32326	03599	-03732	-00136	-00034	-00009	00004	63502	46163	23677
0.000	25.000	00243	03645	-03790	-00133	-00044	-00009	00004	63538	52210	29375
0.000	27.000	00253	03691	-03851	-00140	-00052	-00005	00004	63632	58290	36057
0.000	29.000	00516	03748	-03907	-00149	-00065	-00004	00004	63744	64189	42132
0.000	31.000	03136	03799	-03967	-00153	-00079	-00007	00004	63875	70072	48019
0.000	33.000	03947	03843	-04017	-00160	-00089	-00007	00004	63975	75972	53964
0.000	35.000	10013	03886	-04066	-00169	-00103	-00014	00004	64110	81930	59875
0.000	37.000	11207	03911	-04091	-00174	-00117	-00017	00004	64231	87979	65769
0.000	39.000	12107	03930	-04109	-00179	-00133	-00013	00004	64356	94049	71724
0.000	41.000	13010	03947	-04126	-00184	-00146	-00013	00004	64475	99590	77669
0.000	43.000	13914	03959	-04139	-00189	-00160	-00016	00004	64590	10537	83609
0.000	45.000	14790	03963	-04146	-00193	-00171	-00016	00004	64693	110370	89490
0.000	GRADIENT	03969	03970	-04149	-00194	-00172	-00016	00000	-00000	02067	02024

DATE 10 MAR 75

TABULATED SOURCE DATA - CATH

PAGE 30

CATH 020 C0 E43 P0 N10 N00 R3 W0 M10

INST043) ( 10 OCT 74 )

## REFERENCE DATA

DATE = 2001.7777 50.7777 10/10.00 11.00  
 TIME = 074.0177 11.00 0777 11.00  
 DATE = 010.00 11.00 11.00 11.00  
 TIME = 011.00 11.00

## PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = .000 ELV-RT = .000  
 ELV-NO = .000 BDFLAP = .000  
 S-ORIG = 05.000 RUOOR = .000  
 RM/L = 3.333

RUN NO 1007 1 RM/L = 3.34 GRADIENT INTERVAL = 15.00/ 25.00

MECH	ALPHA	CN	CAP	CLAP	CT	CVM	CN	CAB	KCP/L	CLF	COF
0.001	17.000	.31030	.03752	-.00103	-.00112	-.00112	-.00112	.001200	.65107	.20334	.14603
0.002	18.000	.30710	.03754	-.00146	-.00104	-.00104	-.00104	.001200	.65129	.34124	.17035
0.003	21.000	.43124	.03721	-.00127	-.00100	-.00100	-.00100	.001200	.65253	.40376	.21512
0.004	23.000	.52014	.03729	-.00159	-.00100	-.00100	-.00100	.001200	.65374	.46194	.25027
0.005	25.000	.60321	.03773	-.00153	-.00100	-.00100	-.00100	.001200	.65437	.52290	.30725
0.006	27.000	.68325	.03815	-.00157	-.00104	-.00104	-.00104	.001200	.65500	.58243	.36191
0.007	29.000	.76007	.03801	-.00145	-.00104	-.00104	-.00104	.001200	.65605	.64221	.42322
0.008	31.000	.83256	.03802	-.00146	-.00104	-.00104	-.00104	.001200	.65871	.70144	.48961
0.009	33.000	.90120	.03804	-.00140	-.00104	-.00104	-.00104	.001200	.65936	.75654	.56146
0.010	35.000	1.01130	.03801	-.00130	-.00104	-.00104	-.00104	.001200	.66093	.81104	.63069
0.011	37.000	1.12293	.03825	-.00124	-.00104	-.00104	-.00104	.001200	.66228	.86120	.70197
0.012	39.000	1.21320	.03822	-.00107	-.00104	-.00104	-.00104	.001200	.66356	.91657	.78027
0.013	41.000	1.29420	.03877	-.00132	-.00104	-.00104	-.00104	.001200	.66473	.94702	.86845
0.014	43.000	1.36820	.03874	-.00135	-.00104	-.00104	-.00104	.001200	.66506	.98093	.94905
0.015	45.000	1.43293	.03863	-.00140	-.00104	-.00104	-.00104	.001200	.66600	1.01097	1.03067
0.016	47.000	1.48293	.03871	-.00140	-.00104	-.00104	-.00104	.001200	.66715	.02991	.02991
0.017	49.000	1.50010	.03810	-.00140	-.00104	-.00104	-.00104	.001200	.66712	.02991	.02991

ORIGINAL PAGE IS  
OF POOR QUALITY



(RTUOAT) ( 10 OCT 74 )

TABULATED SOURCE DATA - OA79

OA79 B26 C9 E43 F8 M16 M28 R5 V8 W16

DATE 10 MAR 75

PARAMETRIC DATA

BETA = .000 ELV-LO = 10.000  
ELV-LI = 10.000 ELV-RI = 10.000  
ELV-RO = 10.000 BDFLAP = 16.300  
SPOBKA = 55.000 RUDDER = .000  
RW/L = 3.535

REFERENCE DATA

SREF = 2690.0000 50. FT. XREF = 1076.6000 IN. X0  
LREF = 474.8100 IN. YREF = .0000 IN. Y0  
BREF = 936.6000 IN. ZREF = 375.0000 IN. Z0  
SCALE = .0150

RUN NO. 16270 RW/L = 3.55 GRADIENT INTERVAL = 15.00/25.00

MACH	ALPHA	CN	CAP	CLMF	CY	CYN	CSL	CAB	XCP/L	CLF	CDF
0.000	17.000	33635	.06354	-.04111	-.00007	.00001	-.00125	.00202	.69232	.32220	.16495
0.000	19.000	42914	.06562	-.04791	-.00132	.00051	-.00132	.00202	.69097	.38424	.20191
0.000	21.000	50725	.06655	-.05556	-.00186	.00055	-.00148	.00202	.69021	.44899	.24578
0.000	23.000	56841	.07142	-.06532	-.00182	.00044	-.00159	.00202	.69074	.51372	.29565
0.000	25.000	67239	.07403	-.07476	-.00233	.00046	-.00174	.00202	.69043	.57811	.35126
0.000	27.000	75974	.07676	-.08325	-.00217	.00045	-.00184	.00202	.69026	.64147	.41299
0.000	29.000	84793	.07959	-.09258	-.00263	.00045	-.00200	.00202	.69008	.70503	.48070
0.000	31.000	93945	.08223	-.10265	-.00321	.00068	-.00210	.00202	.69012	.76291	.55433
0.000	33.000	1.03240	.08472	-.11298	-.00321	.00075	-.00220	.00202	.69018	.81969	.63333
0.000	35.000	1.12770	.08695	-.12379	-.00367	.00093	-.00238	.00202	.69031	.87592	.71807
0.000	37.000	1.22290	.08876	-.13484	-.00379	.00097	-.00242	.00202	.69049	.92321	.80684
0.000	39.000	1.31720	.09036	-.14579	-.00380	.00106	-.00246	.00202	.69064	.96683	.89486
0.000	41.000	1.41100	.09167	-.15675	-.00392	.00121	-.00251	.00202	.69087	1.00470	.99270
0.000	43.000	1.50280	.09272	-.16724	-.00425	.00121	-.00255	.00202	.69087	1.03580	1.09270
0.000	45.000	1.59520	.09355	-.17807	-.00449	.00135	-.00255	.00202	.69100	1.06180	1.19410
0.000	47.000	1.68850	.09416	-.18914	-.00474	.00144	-.00255	.00202	.69100	1.08706	1.29332
0.000	49.000	1.78280	.09457	-.20046	-.00498	.00154	-.00255	.00202	.69100	1.11232	1.39254
0.000	51.000	1.87710	.09488	-.21199	-.00522	.00164	-.00255	.00202	.69100	1.13758	1.49176
0.000	53.000	1.97140	.09519	-.22372	-.00546	.00174	-.00255	.00202	.69100	1.16284	1.59098
0.000	55.000	2.06570	.09550	-.23565	-.00570	.00184	-.00255	.00202	.69100	1.18810	1.69020
0.000	57.000	2.16000	.09581	-.24778	-.00594	.00194	-.00255	.00202	.69100	1.21336	1.78942
0.000	59.000	2.25430	.09612	-.25991	-.00618	.00204	-.00255	.00202	.69100	1.23862	1.88864
0.000	61.000	2.34860	.09643	-.27224	-.00642	.00214	-.00255	.00202	.69100	1.26388	1.98786
0.000	63.000	2.44290	.09674	-.28477	-.00666	.00224	-.00255	.00202	.69100	1.28914	2.08708
0.000	65.000	2.53720	.09705	-.29750	-.00690	.00234	-.00255	.00202	.69100	1.31440	2.18630
0.000	67.000	2.63150	.09736	-.31043	-.00714	.00244	-.00255	.00202	.69100	1.33966	2.28552
0.000	69.000	2.72580	.09767	-.32356	-.00738	.00254	-.00255	.00202	.69100	1.36492	2.38474
0.000	71.000	2.82010	.09798	-.33689	-.00762	.00264	-.00255	.00202	.69100	1.39018	2.48396
0.000	73.000	2.91440	.09829	-.35042	-.00786	.00274	-.00255	.00202	.69100	1.41544	2.58318
0.000	75.000	3.00870	.09860	-.36415	-.00810	.00284	-.00255	.00202	.69100	1.44070	2.68240
0.000	77.000	3.10300	.09891	-.37808	-.00834	.00294	-.00255	.00202	.69100	1.46596	2.78162
0.000	79.000	3.19730	.09922	-.39221	-.00858	.00304	-.00255	.00202	.69100	1.49122	2.88084
0.000	81.000	3.29160	.09953	-.40654	-.00882	.00314	-.00255	.00202	.69100	1.51648	2.98006
0.000	83.000	3.38590	.09984	-.42107	-.00906	.00324	-.00255	.00202	.69100	1.54174	3.07928
0.000	85.000	3.48020	.10015	-.43580	-.00930	.00334	-.00255	.00202	.69100	1.56700	3.17850
0.000	87.000	3.57450	.10046	-.45073	-.00954	.00344	-.00255	.00202	.69100	1.59226	3.27772
0.000	89.000	3.66880	.10077	-.46586	-.00978	.00354	-.00255	.00202	.69100	1.61752	3.37694
0.000	91.000	3.76310	.10108	-.48119	-.01002	.00364	-.00255	.00202	.69100	1.64278	3.47616
0.000	93.000	3.85740	.10139	-.49672	-.01026	.00374	-.00255	.00202	.69100	1.66804	3.57538
0.000	95.000	3.95170	.10170	-.51245	-.01050	.00384	-.00255	.00202	.69100	1.69330	3.67460
0.000	97.000	4.04600	.10201	-.52838	-.01074	.00394	-.00255	.00202	.69100	1.71856	3.77382
0.000	99.000	4.14030	.10232	-.54451	-.01098	.00404	-.00255	.00202	.69100	1.74382	3.87304
0.000	101.000	4.23460	.10263	-.56084	-.01122	.00414	-.00255	.00202	.69100	1.76908	3.97226
0.000	103.000	4.32890	.10294	-.57737	-.01146	.00424	-.00255	.00202	.69100	1.79434	4.07148
0.000	105.000	4.42320	.10325	-.59410	-.01170	.00434	-.00255	.00202	.69100	1.81960	4.17070
0.000	107.000	4.51750	.10356	-.61103	-.01194	.00444	-.00255	.00202	.69100	1.84486	4.26992
0.000	109.000	4.61180	.10387	-.62816	-.01218	.00454	-.00255	.00202	.69100	1.87012	4.36914
0.000	111.000	4.70610	.10418	-.64549	-.01242	.00464	-.00255	.00202	.69100	1.89538	4.46836
0.000	113.000	4.80040	.10449	-.66302	-.01266	.00474	-.00255	.00202	.69100	1.92064	4.56758
0.000	115.000	4.89470	.10480	-.68075	-.01290	.00484	-.00255	.00202	.69100	1.94590	4.66680
0.000	117.000	4.98900	.10511	-.69868	-.01314	.00494	-.00255	.00202	.69100	1.97116	4.76602
0.000	119.000	5.08330	.10542	-.71681	-.01338	.00504	-.00255	.00202	.69100	1.99642	4.86524
0.000	121.000	5.17760	.10573	-.73514	-.01362	.00514	-.00255	.00202	.69100	2.02168	4.96446
0.000	123.000	5.27190	.10604	-.75367	-.01386	.00524	-.00255	.00202	.69100	2.04694	5.06368
0.000	125.000	5.36620	.10635	-.77240	-.01410	.00534	-.00255	.00202	.69100	2.07220	5.16290
0.000	127.000	5.46050	.10666	-.79133	-.01434	.00544	-.00255	.00202	.69100	2.09746	5.26212
0.000	129.000	5.55480	.10697	-.81046	-.01458	.00554	-.00255	.00202	.69100	2.12272	5.36134
0.000	131.000	5.64910	.10728	-.82979	-.01482	.00564	-.00255	.00202	.69100	2.14798	5.46056
0.000	133.000	5.74340	.10759	-.84932	-.01506	.00574	-.00255	.00202	.69100	2.17324	5.55978
0.000	135.000	5.83770	.10790	-.86905	-.01530	.00584	-.00255	.00202	.69100	2.19850	5.65900
0.000	137.000	5.93200	.10821	-.88898	-.01554	.00594	-.00255	.00202	.69100	2.22376	5.75822
0.000	139.000	6.02630	.10852	-.90911	-.01578	.00604	-.00255	.00202	.69100	2.24902	5.85744
0.000	141.000	6.12060	.10883	-.92944	-.01602	.00614	-.00255	.00202	.69100	2.27428	5.95666
0.000	143.000	6.21490	.10914	-.95007	-.01626	.00624	-.00255	.00202	.69100	2.29954	6.05588
0.000	145.000	6.30920	.10945	-.97090	-.01650	.00634	-.00255	.00202	.69100	2.32480	6.15510
0.000	147.000	6.40350	.10976	-.99193	-.01674	.00644	-.00255	.00202	.69100	2.35006	6.25432
0.000	149.000	6.49780	.11007	-.10126	-.01698	.00654	-.00255	.00202	.69100	2.37532	6.35354
0.000	151.000	6.59210	.11038	-.10289	-.01722	.00664	-.00255	.00202	.69100	2.40058	6.45276
0.000	153.000	6.68640	.11069	-.10472	-.01746	.00674	-.00255	.00202	.69100	2.42584	6.55198
0.000	155.000	6.78070	.11100	-.10675	-.01770	.00684	-.00255	.00202	.69100	2.45110	6.65120
0.000	157.000	6.87500	.11131	-.10898	-.01794	.00694	-.00255	.00202	.69100	2.47636	6.75042
0.000	159.000	6.96930	.11162	-.11141	-.01818	.00704	-.00255	.00202	.69100	2.50162	6.84964
0.000	161.000	7.06360	.11193	-.11404	-.01842	.00714	-.00255	.00202	.69100	2.52688	6.94886
0.000	163.000	7.15790	.11224	-.11687	-.01866	.00724	-.00255	.00202	.69100	2.55214	7.04808
0.000	165.000	7.25220	.11255	-.11990	-.01890	.00734	-.00255	.00202	.69100	2.57740	7.14730
0.000	167.000	7.34650	.11286	-.12313	-.01914	.00744	-.00255	.00202	.69100	2.60266	7.24652
0.000	169.000	7.44080	.11317	-.12656	-.01938	.00754	-.00255	.00202	.69100	2.62792	7.34574
0.000	171.000	7.53510	.11348	-.13019	-.01962	.00764	-.00255	.00202	.69100	2.65318	7.44496
0.000	173.000	7.62940	.11379	-.13402	-.01986	.00774	-.00255	.00202	.69100	2.67844	7.54418
0.000	175.000	7.72370	.11410	-.13805	-.02010	.00784	-.00255	.00202	.69100	2.70370	7.64340
0.000	177.000	7.81800	.11441	-.14228	-.02034	.00794	-.00255	.00202	.69100	2.72896	7.74262
0.000	179.000	7.91230	.11472	-.14671	-.02058	.00804	-.00255	.00202	.69100	2.75422	7.84184
0.000	181.000	8.00660	.11503	-.15134	-.02082	.00814	-.00255	.00202	.69100	2.77948	7.94106
0.000	183.000	8.10090	.11534	-.15617	-.02106	.00824	-.00255	.00202	.69100	2.80474	8.04028
0.000	185.000	8.19520	.11565	-.16120	-.02130	.00834	-.00255	.00202	.69100	2.83000	8.13950
0.000	187.000	8.28950	.11596	-.16643	-.02154	.00844	-.00255	.00202	.69100	2.85526	8.23872



C479 826 C9 E43 F8 M16 M28 R5 V8 M116

(UTM048) ( 18 OCT 74 )

## REFERENCE DATA

BREF = 2000.0000 90.00 FT.    XREF = 1076.0000 IN. X0  
 LREF = 474.8100 IN.    YREF = .0000 IN. Y0  
 BREF = 936.6000 IN.    ZREF = 375.0000 IN. Z0  
 SCALE = .0150

## PARAMETRIC DATA

BETA = .000    ELV-L0 = .000  
 ELV-L1 = .000    ELV-M1 = .000  
 ELV-R0 = .000    BDPLAP = -11.700  
 SPOWRK = 95.000    RUDDER = .000  
 RM/L = 1.860

RUN NO. 197/ 0    RM/L = 1.81    GRADIENT INTERVAL = 15.00/ 25.00

MACH	ALPHA	CN	CAF	CLWF	CY	CYN	CBL	CAB	XCP/L	CLF	COF
7.900	17.000	.30378	.03780	-.00245	-.00001	.00029	-.00025	.00170	.65283	.27557	.14449
7.900	19.000	.37362	.05009	-.00066	-.00134	-.00002	-.00021	.00170	.65054	.33970	.17467
7.900	21.000	.44148	.05636	-.00024	-.00139	-.00004	-.00024	.00170	.64969	.39196	.21083
7.900	23.000	.51323	.05662	-.00085	-.00167	-.00009	-.00022	.00170	.65051	.45031	.25266
7.900	25.000	.58859	.05692	-.00176	-.00195	-.00014	-.00024	.00170	.65100	.50939	.30034
7.900	27.000	.66755	.05717	-.00253	-.00212	-.00020	-.00027	.00170	.65130	.56883	.35400
7.900	29.000	.74763	.05762	-.00364	-.00220	-.00027	-.00029	.00170	.65220	.62596	.41286
7.900	31.000	.83101	.05804	-.00483	-.00228	-.00026	-.00035	.00170	.65336	.68310	.47817
7.900	33.000	.91825	.05837	-.00612	-.00268	-.00023	-.00040	.00170	.65457	.73832	.54907
7.900	35.000	1.00650	.05822	-.00742	-.00285	-.00022	-.00045	.00170	.65592	.79090	.62487
7.900	37.000	1.09580	.05812	-.00871	-.00296	-.00037	-.00039	.00170	.65711	.84005	.70579
7.900	39.000	1.18410	.05748	-.00996	-.00327	-.00040	-.00039	.00170	.65830	.88475	.78966
7.900	41.000	1.27280	.05677	-.00311	-.00346	-.00040	-.00040	.00170	.65949	.92317	.87773
7.900	43.000	1.36040	.05582	-.00364	-.00366	-.00038	-.00040	.00170	.66065	.95886	.96861
7.900	GRADIENT	.03526	-.00074	.00006	-.00013	-.00015	.00000	-.00000	-.00018	.02915	.01948

DATE 19 MAR 73

TABULATED SOURCE DATA - CAT9

PAGE 43

CAT9 826 C8 E43 F8 M16 M28 R3 V8 M16

(RTM049) ( 18 OCT 74 )

## REFERENCE DATA

REF = 2000.0000 IN. FT.    WARP = 10/6.0000 IN. MO  
 LREF = 4/4.0000 IN.    YARP = .0000 IN. YO  
 REF = 336.0000 IN.    ZARP = 3/5.0000 IN. ZO  
 SCALE = .01251

## PARAMETRIC DATA

BETA = .000    ELV-LO = .000  
 ELV-LI = .000    ELV-RI = .000  
 ELV-RO = .000    BDFLAP = 16.000  
 SPOBRK = 55.000    RUOGER = .000  
 RML = 1.000

RUN NO. 151/0    RML = 1.93    GRADIENT INTERVAL = 15.00/ 25.00

WACH	ALPHA	CM	CAF	CLWF	CV	CUN	CBL	CAD	KCP/L	CLF	COF
7.997	17.000	.32791	.05990	-.01734	-.00106	.00019	-.00226	.00171	.56976	.28949	.15073
7.997	19.000	.39114	.08120	-.01942	-.00132	.00023	-.00221	.00171	.65853	.35323	.18426
7.997	21.000	.46496	.09788	-.02344	-.00178	-.00024	-.00221	.00171	.67333	.41226	.22346
7.997	23.000	.54079	.05244	-.03123	-.00122	-.00013	-.00220	.00171	.67115	.47340	.26878
7.997	25.000	.62787	.06378	-.03717	-.00134	-.00014	-.00225	.00171	.67187	.53574	.32019
7.997	27.000	.70336	.06340	-.04343	-.00181	-.00017	-.00232	.00171	.67262	.59720	.37769
7.997	29.000	.76835	.06712	-.04985	-.00194	-.00016	-.00237	.00171	.67317	.65714	.44100
7.997	31.000	.82753	.06860	-.05677	-.00223	-.00019	-.00244	.00171	.67378	.71313	.50974
7.997	33.000	.86583	.07014	-.06444	-.00263	-.00011	-.00252	.00171	.67447	.77183	.58486
7.997	35.000	1.05690	.07120	-.07284	-.00283	-.00017	-.00259	.00171	.67521	.82493	.66433
7.997	37.000	1.14890	.07270	-.08136	-.00297	-.00026	-.00253	.00171	.67598	.87414	.74911
7.997	39.000	1.24020	.07291	-.09012	-.00318	-.00029	-.00252	.00171	.67666	.91794	.83715
7.997	41.000	1.33080	.07336	-.09917	-.00338	-.00033	-.00253	.00171	.67734	.95820	.92844
7.997	43.000	1.42070	.07374	-.10820	-.00378	-.00031	-.00253	.00171	.67794	.99878	1.02290
7.997	45.000	1.50910	.07354	-.11734	-.00378	-.00034	-.00253	.00171	.67854	1.03978	1.12117

GRADIENT

CAP 826 CO E43 P8 M16 M28 R3 V8 M16

(RTNDS) (18 OCT 74)

## REFERENCE DATA

BSEP = 2000.0000 90.00 FT.    BSEP = 1070.0000 IN. 40  
 LSEP = 474.8100 IN.    YSEP = .0000 IN. 70  
 MSEP = 936.0000 IN.    ZSEP = 378.0000 IN. 20  
 SCALE = .0100

## PARAMETRIC DATA

BETA = .000    BLV-LO = 10.000  
 BLV-LI = 10.000    BLV-RI = 10.000  
 BLV-RO = 10.000    BOP-LAP = 18.000  
 SPOBKS = 91.000    RUDDOR = .000  
 RM/L = 1.800

RUN NO. 1527 0    RM/L = 1.86    GRADIENT INTERVAL = 15.00/ 25.00

RMON	ALPHA	CN	CAP	CLMF	CV	CYN	COL	CAB	XCP/L	CLF	COF
1.900	17.000	.34342	.06435	-.03746	-.00124	.00041	-.00048	.00169	.68879	.31145	.16278
1.900	18.000	.41900	.08575	-.04245	-.00209	.00037	-.00096	.00169	.68739	.37352	.19884
1.900	21.000	.48790	.06790	-.05184	-.00147	.00027	-.00101	.00169	.68821	.44064	.24145
1.900	23.000	.57819	.06970	-.08774	-.00182	.00031	-.00110	.00169	.68856	.50499	.29007
1.900	25.000	.66170	.07209	-.06999	-.00203	.00033	-.00121	.00169	.68883	.56824	.34498
1.900	27.000	.74827	.07976	-.07922	-.00237	.00034	-.00135	.00169	.68997	.63264	.40659
1.900	29.000	.83661	.07804	-.08876	-.00232	.00037	-.00148	.00169	.68895	.69388	.47385
1.900	31.000	.92825	.06114	-.09869	-.00275	.00047	-.00164	.00169	.68904	.75368	.54763
1.900	33.000	1.02190	.06369	-.10941	-.00298	.00055	-.00176	.00169	.68934	.81083	.62661
1.900	35.000	1.11570	.06638	-.12746	-.00344	.00065	-.00192	.00169	.68965	.86438	.71070
1.900	37.000	1.21090	.06868	-.13190	-.00355	.00057	-.00188	.00169	.68999	.91336	.79930
1.900	39.000	1.30480	.09087	-.14266	-.00381	.00081	-.00193	.00169	.69115	.95866	.89177
1.900	41.000	1.39740	.09273	-.15435	-.00422	.00065	-.00198	.00169	.69156	.99382	.98679
1.900	43.000	1.48980	.09433	-.16497	-.00472	.00071	-.00204	.00169	.69067	1.02310	1.08490
GRADIENT		.73935	.09795	-.09417	-.00513	-.00001	-.00004	-.00000	-.00002	.03225	.02279

DATE 19 MAR 75

TABULATED SOURCE DATA - CARS

CARS 826 C9 E43 F8 H16 M28 R5 W8 M16

UTW0311 ( 18 OCT 74 )

REFERENCE DATA

SREF = 20001.0000 90. FT. WARP = 10/16.0000 IN. RO  
 LREF = 0/4.0100 IN. YWAP = .0000 IN. TO  
 BREF = 930.0000 IN. ZWAP = 5/5.0000 IN. ZO  
 SCALE = .0150

PARAMETRIC DATA

BETA = .0000 ELV-LO = 10.0000  
 ELV-LI = 10.0000 ELV-RI = 10.0000  
 ELV-RO = 10.0000 BDFLAP = .0000  
 SPOBAR = 55.0000 RUDDER = .0000  
 RN/L = 1.8000

RUN NO. 133/0 RN/L = 1.84 GRADIENT INTERVAL = 15.00/25.00

WAOH	ALPHA	CN	CAF	CLMF	CV	CYN	CBL	CAB	XCP/L	CLF	COF
1.980	17.000	.33976	.06128	-.02434	-.03115	.00000	-.00000	.00000	.67676	.30000	.15590
1.981	18.000	.40324	.06206	-.02384	-.03107	.00000	-.00000	.00000	.67335	.36296	.19083
1.982	19.000	.47162	.06290	-.02334	-.03102	.00000	-.00000	.00000	.67000	.42590	.22951
1.983	20.000	.53574	.06320	-.02285	-.03097	.00000	-.00000	.00000	.66667	.48883	.27332
1.984	21.000	.59510	.06352	-.02234	-.03092	.00000	-.00000	.00000	.66333	.55176	.32691
1.985	22.000	.65000	.06380	-.02183	-.03087	.00000	-.00000	.00000	.66000	.61470	.38110
1.986	23.000	.70000	.06408	-.02132	-.03082	.00000	-.00000	.00000	.65667	.67763	.43584
1.987	24.000	.74500	.06436	-.02081	-.03077	.00000	-.00000	.00000	.65333	.74056	.49107
1.988	25.000	.78500	.06464	-.02030	-.03072	.00000	-.00000	.00000	.65000	.80349	.54680
1.989	26.000	.82000	.06492	-.01979	-.03067	.00000	-.00000	.00000	.64667	.86642	.60303
1.990	27.000	.85000	.06520	-.01928	-.03062	.00000	-.00000	.00000	.64333	.92935	.65926
1.991	28.000	.87500	.06548	-.01877	-.03057	.00000	-.00000	.00000	.64000	.99228	.71549
1.992	29.000	.90000	.06576	-.01826	-.03052	.00000	-.00000	.00000	.63667	.05521	.77172
1.993	30.000	.92500	.06604	-.01775	-.03047	.00000	-.00000	.00000	.63333	.11814	.82795
1.994	31.000	.95000	.06632	-.01724	-.03042	.00000	-.00000	.00000	.63000	.18107	.88418
1.995	32.000	.97500	.06660	-.01673	-.03037	.00000	-.00000	.00000	.62667	.24400	.94041
1.996	33.000	1.00000	.06688	-.01622	-.03032	.00000	-.00000	.00000	.62333	.30693	.99664
1.997	34.000	1.02500	.06716	-.01571	-.03027	.00000	-.00000	.00000	.62000	.36986	.05287
1.998	35.000	1.05000	.06744	-.01520	-.03022	.00000	-.00000	.00000	.61667	.43279	.10910
1.999	36.000	1.07500	.06772	-.01469	-.03017	.00000	-.00000	.00000	.61333	.49572	.16533
1.990	37.000	1.10000	.06800	-.01418	-.03012	.00000	-.00000	.00000	.61000	.55865	.22156
1.991	38.000	1.12500	.06828	-.01367	-.03007	.00000	-.00000	.00000	.60667	.62158	.27779
1.992	39.000	1.15000	.06856	-.01316	-.03002	.00000	-.00000	.00000	.60333	.68451	.33402
1.993	40.000	1.17500	.06884	-.01265	-.03000	.00000	-.00000	.00000	.60000	.74744	.39025
1.994	41.000	1.20000	.06912	-.01214	-.02995	.00000	-.00000	.00000	.59667	.81037	.44648
1.995	42.000	1.22500	.06940	-.01163	-.02990	.00000	-.00000	.00000	.59333	.87330	.50271
1.996	43.000	1.25000	.06968	-.01112	-.02985	.00000	-.00000	.00000	.59000	.93623	.55894
1.997	44.000	1.27500	.06996	-.01061	-.02980	.00000	-.00000	.00000	.58667	.99916	.61517
1.998	45.000	1.30000	.07024	-.01010	-.02975	.00000	-.00000	.00000	.58333	.06210	.67140
1.999	46.000	1.32500	.07052	-.00959	-.02970	.00000	-.00000	.00000	.58000	.12503	.72763
1.990	47.000	1.35000	.07080	-.00908	-.02965	.00000	-.00000	.00000	.57667	.18796	.78386
1.991	48.000	1.37500	.07108	-.00857	-.02960	.00000	-.00000	.00000	.57333	.25089	.84009
1.992	49.000	1.40000	.07136	-.00806	-.02955	.00000	-.00000	.00000	.57000	.31382	.89632
1.993	50.000	1.42500	.07164	-.00755	-.02950	.00000	-.00000	.00000	.56667	.37675	.95255
1.994	51.000	1.45000	.07192	-.00704	-.02945	.00000	-.00000	.00000	.56333	.43968	.00878
1.995	52.000	1.47500	.07220	-.00653	-.02940	.00000	-.00000	.00000	.56000	.50261	.06501
1.996	53.000	1.50000	.07248	-.00602	-.02935	.00000	-.00000	.00000	.55667	.56554	.12124
1.997	54.000	1.52500	.07276	-.00551	-.02930	.00000	-.00000	.00000	.55333	.62847	.17747
1.998	55.000	1.55000	.07304	-.00500	-.02925	.00000	-.00000	.00000	.55000	.69140	.23370
1.999	56.000	1.57500	.07332	-.00449	-.02920	.00000	-.00000	.00000	.54667	.75433	.28993
1.990	57.000	1.60000	.07360	-.00398	-.02915	.00000	-.00000	.00000	.54333	.81726	.34616
1.991	58.000	1.62500	.07388	-.00347	-.02910	.00000	-.00000	.00000	.54000	.88019	.40239
1.992	59.000	1.65000	.07416	-.00296	-.02905	.00000	-.00000	.00000	.53667	.94312	.45862
1.993	60.000	1.67500	.07444	-.00245	-.02900	.00000	-.00000	.00000	.53333	.00605	.51485
1.994	61.000	1.70000	.07472	-.00194	-.02895	.00000	-.00000	.00000	.53000	.06898	.57108
1.995	62.000	1.72500	.07500	-.00143	-.02890	.00000	-.00000	.00000	.52667	.13191	.62731
1.996	63.000	1.75000	.07528	-.00092	-.02885	.00000	-.00000	.00000	.52333	.19484	.68354
1.997	64.000	1.77500	.07556	-.00041	-.02880	.00000	-.00000	.00000	.52000	.25777	.73977
1.998	65.000	1.80000	.07584	-.00000	-.02875	.00000	-.00000	.00000	.51667	.32070	.79600
1.999	66.000	1.82500	.07612	-.00000	-.02870	.00000	-.00000	.00000	.51333	.38363	.85223
1.990	67.000	1.85000	.07640	-.00000	-.02865	.00000	-.00000	.00000	.51000	.44656	.90846
1.991	68.000	1.87500	.07668	-.00000	-.02860	.00000	-.00000	.00000	.50667	.50949	.96469
1.992	69.000	1.90000	.07696	-.00000	-.02855	.00000	-.00000	.00000	.50333	.57242	.02092
1.993	70.000	1.92500	.07724	-.00000	-.02850	.00000	-.00000	.00000	.50000	.63535	.07715
1.994	71.000	1.95000	.07752	-.00000	-.02845	.00000	-.00000	.00000	.49667	.69828	.13338
1.995	72.000	1.97500	.07780	-.00000	-.02840	.00000	-.00000	.00000	.49333	.76121	.18961
1.996	73.000	2.00000	.07808	-.00000	-.02835	.00000	-.00000	.00000	.49000	.82414	.24584
1.997	74.000	2.02500	.07836	-.00000	-.02830	.00000	-.00000	.00000	.48667	.88707	.30207
1.998	75.000	2.05000	.07864	-.00000	-.02825	.00000	-.00000	.00000	.48333	.95000	.35830
1.999	76.000	2.07500	.07892	-.00000	-.02820	.00000	-.00000	.00000	.48000	.01293	.41453
1.990	77.000	2.10000	.07920	-.00000	-.02815	.00000	-.00000	.00000	.47667	.07586	.47076
1.991	78.000	2.12500	.07948	-.00000	-.02810	.00000	-.00000	.00000	.47333	.13879	.52699
1.992	79.000	2.15000	.07976	-.00000	-.02805	.00000	-.00000	.00000	.47000	.20172	.58322
1.993	80.000	2.17500	.08004	-.00000	-.02800	.00000	-.00000	.00000	.46667	.26465	.63945
1.994	81.000	2.20000	.08032	-.00000	-.02795	.00000	-.00000	.00000	.46333	.32758	.69568
1.995	82.000	2.22500	.08060	-.00000	-.02790	.00000	-.00000	.00000	.46000	.39051	.75191
1.996	83.000	2.25000	.08088	-.00000	-.02785	.00000	-.00000	.00000	.45667	.45344	.80814
1.997	84.000	2.27500	.08116	-.00000	-.02780	.00000	-.00000	.00000	.45333	.51637	.86437
1.998	85.000	2.30000	.08144	-.00000	-.02775	.00000	-.00000	.00000	.45000	.57930	.92060
1.999	86.000	2.32500	.08172	-.00000	-.02770	.00000	-.00000	.00000	.44667	.64223	.97683
1.990	87.000	2.35000	.08200	-.00000	-.02765	.00000	-.00000	.00000	.44333	.70516	.03306
1.991	88.000	2.37500	.08228	-.00000	-.02760	.00000	-.00000	.00000	.44000	.76809	.08929
1.992	89.000	2.40000	.08256	-.00000	-.02755	.00000	-.00000	.00000	.43667	.83102	.14552
1.993	90.000	2.42500	.08284	-.00000	-.02750	.00000	-.00000	.00000	.43333	.89395	.20175
1.994	91.000	2.45000	.08312	-.00000	-.02745	.00000	-.00000	.00000	.43000	.95688	.25798
1.995	92.000	2.47500	.08340	-.00000	-.02740	.00000	-.00000	.00000	.42667	.01981	.31421
1.996	93.000	2.50000	.08368	-.00000	-.02735	.00000	-.00000	.00000	.42333	.08274	.37044
1.997	94.000	2.52500	.08396	-.00000	-.02730	.00000	-.00000	.00000	.42000	.14567	.42667
1.998	95.000	2.55000	.08424	-.00000	-.02725	.00000	-.00000	.00000	.41667	.20860	.48290
1.999	96.000	2.57500	.08452	-.00000	-.02720	.00000	-.00000	.00000	.41333	.27153	.53913
1.990	97.000	2.60000	.08480	-.00000	-.02715	.00000	-.00000	.00000	.41000	.33446	.59536
1.991	98.000	2.62500	.08508	-.00000	-.02710	.00000	-.00000	.00000	.40667	.39739	.65159
1.992	99.000	2.65000	.08536	-.00000	-.02705	.00000	-.00000	.00000	.40333	.46032	.70782
1.993	100.000	2.67500	.08564	-.00000	-.02700	.00000	-.00000	.00000	.40000	.52325	.76405
1.994	101.000	2.70000	.08592	-.00000	-.02695	.00000	-.00000	.00000	.39667	.58618	.82028
1.995	102.000	2.72500	.08620	-.00000	-.02690	.00000	-.00000	.00000	.39333	.64911	.87651
1.996	103.000	2.75000	.08648	-.00000	-.02685	.00000	-.00000	.00000	.39000	.71204	.93274
1.997	104.000	2.77500	.08676	-.00000	-.02680	.00000	-.00000	.00000	.38667		

DATE 19 MAR 75

TABULATED SOURCE DATA - CA 79

PAGE 46

CA 79 B26 C9 E43 F6 M16 M28 R5 W6 M416

(RTM032) ( 18 OCT 74 )

## REFERENCE DATA

REF = 2000.0000 90.00  
 LREF = 4/4.0100 IN.  
 MREF = 936.6000 IN.  
 SCALE = .0190

BETA =  
 ELV-LI =  
 ELV-RO =  
 SPOBRK =  
 RM/L =

ELV-LO = 20.000  
 ELV-RI = 20.000  
 BOFLAP = .000  
 RUDDER = .000  
 RM/L = 1.860

## PARAMETRIC DATA

RUN NO. 154/ 0 RM/L = 1.86 GRADIENT INTERVAL = 15.00/ 25.00

MAON	ALPHA	CN	CAF	CLAF	CY	CYN	COL	CAB	KCP/L	CLF	CDF
7.900	17.000	.37759	.07690	-.00217	-.00133	.00133	-.00142	.00169	.71047	.33020	.18327
7.901	19.000	.43350	.08181	-.00616	-.00101	.00131	-.00047	.00169	.70519	.40263	.22309
7.902	21.000	.53418	.08371	-.07576	-.00140	.00129	-.00062	.00169	.70209	.46868	.26957
7.903	23.000	.61304	.08731	-.08482	-.00172	.00127	-.00065	.00169	.70146	.53277	.32099
7.904	25.000	.69933	.09798	-.09308	-.00187	.00122	-.00068	.00169	.69888	.59536	.37601
7.905	27.000	.78672	.09403	-.11193	-.00197	.00118	-.00075	.00169	.69739	.65792	.44166
7.906	29.000	.87497	.09059	-.11064	-.00203	.00114	-.00076	.00169	.69644	.71747	.51042
7.907	31.000	.96572	.10232	-.12010	-.00233	.00118	-.00081	.00169	.69568	.77508	.58509
7.908	33.000	1.05910	.11996	-.12990	-.00253	.00118	-.00087	.00169	.69505	.83054	.66570
7.909	35.000	1.15400	.13916	-.14054	-.00291	.00111	-.00082	.00169	.69473	.88268	.75131
7.900	37.000	1.24050	.15216	-.15174	-.00296	.00103	-.00083	.00169	.69443	.92963	.84097
7.901	39.000	1.34240	.16488	-.16171	-.00336	.00107	-.00090	.00169	.69425	.97092	.93406
7.902	41.000	1.45350	.17728	-.17287	-.00358	.00107	-.00092	.00169	.69417	1.00630	1.03020
7.903	43.000	1.52770	.18927	-.18402	-.00436	.00121	-.00101	.00169	.69425	1.03597	1.12910
7.904	45.000	.00129	.00110	-.00391	-.00479	-.00101	-.00103	.00169	-.00140	.03222	.02413

GRADIENT

DATE 19 MAR 75

TABULATED SOURCE DATA - C/M

CA/9 826 C9 E43 F8 M16 N28 R3 V6 M16

(RTM033) (18 OCT 74)

PAGE 47

REFERENCE DATA

WARP = 2400.0000 90.00 FT. WARP = 1076.6000 1M.RO  
REF = 474.9100 1M. WARP = .0000 1M.RO  
WARP = 936.6000 1M. WARP = 373.0000 1M.RO  
SCALE = .0100

PARAMETRIC DATA

BETA = .0000 ELV-LO = 20.0000  
ELV-LI = 20.0000 ELV-RI = 20.0000  
ELV-RO = 20.0000 BDFLAP = 16.0000  
SPOBKR = 55.0000 RUDDER = .0000  
RWL = 1.0000

RUN NO. 1337 0 RWL = 1.06 GRADIENT INTERVAL = 15.00/ 25.00

WASH	ALPHA	CM	CAF	CLWF	CT	CYN	CDL	CAS	KCP/L	CLF	CDF
1.000	17.000	.38234	.07903	-.07532	-.07111	.00049	-.00073	.00160	.72049	.33202	.19121
1.000	18.000	.47310	.08396	-.08669	-.07087	.00043	-.00078	.00160	.71775	.41716	.23243
1.000	21.000	.55310	.08883	-.09844	-.07149	.00042	-.00084	.00160	.71515	.48639	.28188
1.000	23.000	.64378	.09334	-.11102	-.07173	.00044	-.00086	.00160	.71366	.55338	.33629
1.000	25.000	.72890	.09847	-.12380	-.07189	.00040	-.00089	.00160	.71234	.61863	.39712
1.000	27.000	.81048	.10349	-.13641	-.07204	.00036	-.00096	.00160	.71124	.68229	.46379
1.000	29.000	.89886	.10847	-.14818	-.07227	.00039	-.00100	.00160	.71084	.74319	.53597
1.000	31.000	.97290	.11390	-.16114	-.07234	.00044	-.00104	.00160	.70978	.80075	.61333
1.000	33.000	1.04090	.11788	-.17343	-.07297	.00047	-.00107	.00160	.70798	.85740	.69736
1.000	35.000	1.11910	.12232	-.18597	-.07328	.00049	-.00107	.00160	.70734	.90885	.78569
1.000	37.000	1.20240	.12634	-.19832	-.07340	.00039	-.00105	.00160	.70620	.95599	.87883
1.000	39.000	1.36710	.13041	-.21214	-.07375	.00046	-.00110	.00160	.70575	1.00000	.97426
1.000	41.000	1.48190	.13593	-.22484	-.07407	.00037	-.00113	.00160	.70550	1.03000	1.07330
1.000	43.000	1.57670	.13691	-.23903	-.07485	.00076	-.00122	.00160	.70550	.00000	1.17900
1.000	45.000	.04213	.00000	-.00000	-.00000	-.00000	-.00000	-.00000	-.00000	.00000	.00000

GRADIENT

DATE 10 MAR 75

TABULATED SOURCE DATA - ON M

PAGE 48

ON M 828 C9 E43 F8 M16 M28 R3 W8 M16

(RTN034) (10 OCT 74)

## REFERENCE DATA

SREF = 2000.0000 80.00  
 LREF = 474.8100 IN.  
 MREF = 936.6000 IN.  
 SCALE = .0100

BETA = .000  
 ELV-LO = -40.000  
 ELV-LI = -40.000  
 ELV-RI = -40.000  
 ELV-RO = -40.000  
 BDFLAP = .000  
 SPOBKE = 55.000  
 RUDDER = .000  
 RWL = 1.800

## PARAMETRIC DATA

RUN NO. 158/0 RWL = 1.87 GRADIENT INTERVAL = 15.00/25.00

MACH	ALPHA	CN	CAF	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	CDF
7.000	17.000	.28079	.06179	.01193	-.00113	.00023	.00039	.00176	.63449	.29352	.14274
7.000	19.000	.34707	.09992	.01423	-.00067	.00005	.00042	.00176	.63481	.30934	.16989
7.000	21.000	.41001	.09935	.01607	-.00090	-.00002	.00045	.00176	.63574	.36711	.20450
7.000	23.000	.48556	.09965	.01757	-.00113	-.00010	.00050	.00176	.63656	.42366	.24463
7.000	25.000	.55772	.09701	.01928	-.00133	-.00019	.00051	.00176	.63718	.48010	.29009
7.000	27.000	.63103	.09755	.02049	-.00172	-.00019	.00050	.00176	.63797	.53947	.34079
7.000	29.000	.70707	.09639	.02117	-.00194	-.00018	.00050	.00176	.63894	.58929	.39684
7.000	31.000	.78687	.09607	.02136	-.00215	-.00020	.00051	.00175	.63942	.64252	.45845
7.000	33.000	.86841	.09252	.02173	-.00233	-.00018	.00047	.00175	.64071	.69425	.52345
7.000	35.000	.99103	.08292	.02142	-.00271	-.00029	.00051	.00175	.64202	.74279	.59692
7.000	37.000	1.03450	.06376	.01923	-.00270	-.00036	.00053	.00175	.64308	.78808	.67282
7.000	39.000	1.11717	.06297	.01761	-.00304	-.00046	.00053	.00175	.64412	.82851	.75194
7.000	41.000	1.19900	.06250	.01548	-.00319	-.00047	.00056	.00175	.64518	.86455	.83447
7.000	43.000	1.28151	.06198	.01353	-.00349	-.00052	.00062	.00175	.64604	.89492	.91928
7.000	45.000	1.36592	.06171	.01182	-.00400	-.00059	.00064	.00175	.64701	.92156	1.00890
7.000	45.000	.03435	-.00119	.00090	-.00000	-.00000	.00000	-.00000	.00000	.02817	.01847

GRADIENT

DATE 10 MAR 75

TABULATED SOURCE DATA - C/M

PAGE 49

C/M 525 C5 E43 F8 H16 M25 R3 W6 M16

(RTN355) (18 OCT 74)

## REFERENCE DATA

STEP = 2000 7775 86.75. WARP = 1076.6633 IN.40  
 .REF = 674.8131 IN. YARP = .0000 IN.40  
 DATEP = 936 6075 IN. ZARP = 375.0000 IN.20  
 SCALE = .1193

## PARAMETRIC DATA

BETA = .000 ELV-LO = 10.000  
 ELV-LI = 10.000 ELV-BI = 10.000  
 ELV-RO = 10.000 BDF-LAP = 16.000  
 SPOBEM = 55.000 RUGGER = .000  
 R/V/L = .000

RUN NO. 163/0 R/V/L = .00 GRADIENT INTERVAL = 15.00/23.00

W/OH	ALPHA	CN	CAP	CLMF	CY	CYN	CB	CAB	XCP/L	CLF	CDP
1.000	1.000	.34766	.06213	-.03571	-.00035	.00033	-.00094	.00114	.68240	.31433	.16087
1.000	1.000	.47508	.06747	-.04031	-.00035	.00042	-.00109	.00115	.68644	.36190	.19397
1.000	1.000	.47508	.07148	-.04671	-.00026	.00047	-.00122	.00115	.68618	.41671	.23633
1.000	1.000	.53162	.07339	-.05415	-.00036	.00045	-.00134	.00115	.68603	.47979	.28309
1.000	1.000	.63306	.07615	-.06099	-.00089	.00055	-.00144	.00116	.68476	.54298	.33501
1.000	1.000	.71606	.07855	-.06879	-.00130	.00056	-.00154	.00116	.68482	.60497	.39192
1.000	1.000	.79902	.07774	-.07661	-.00136	.00080	-.00159	.00116	.68516	.66227	.45520
1.000	1.000	.88131	.08275	-.08556	-.00164	.00064	-.00167	.00116	.68527	.72247	.52708
1.000	1.000	.96131	.08731	-.09341	-.00233	.00064	-.00174	.00116	.68573	.77794	.60384
1.000	1.000	1.03707	.08931	-.10194	-.00236	.00069	-.00179	.00116	.68585	.83247	.68668
1.000	1.000	1.11670	.08756	-.11043	-.00263	.00069	-.00187	.00117	.68664	.87981	.77282
1.000	1.000	1.23780	.08972	-.12717	-.00337	.00076	-.00191	.00117	.68714	.92386	.86115
1.000	1.000	1.35970	.08793	-.13841	-.00355	.00076	-.00193	.00117	.68764	.95958	.95463
1.000	1.000	1.48050	.08269	-.14772	-.00416	.00087	-.00196	.00117	.68772	.98867	1.04870
1.000	1.000	.01300	.00151	-.00362	-.00000	.00000	-.00000	.00000	.00000	.00000	.00000



CM/78 0250 C0 E43 F0 M16 M00 R0 V0 M16

(RTM056) (10 OCT 74)

## REFERENCE DATA

REF = 0007.0723 00.71. M0P = 1076.0073 IN.20  
 LREF = 076.0173 IN. Y0P = .0723 IN.70  
 BREF = 030.0073 IN. Z0P = 373.0723 IN.20  
 SCALE = .7197

## PARAMETRIC DATA

BETA = .0723 ELV-LO = 10.0723  
 ELV-LI = 10.0000 ELV-RI = 10.0000  
 ELV-RO = 10.0723 BOPLAP = .0700  
 SPORKE = 35.0723 RUDDER = .0723  
 RWL = .0723

RUN NO. 1047 0 RWL = .51 GRADIENT INTERVAL = 15.00/ 25.00

ALPHA	CM	CAP	CLMP	CY	CYM	COL	CAB	KCP/L	CLF	COF
1.0723	39226	.06266	-.02323	-.07337	.07347	-.07377	.07114	.67378	.29751	.13648
1.0723	38274	.06736	-.02970	-.07341	.07355	-.07111	.07114	.67792	.33923	.18826
1.0723	49664	.06891	-.03186	-.07379	.07381	-.07122	.07114	.67341	.47441	.22923
1.0723	53365	.06962	-.03313	-.07172	.07355	-.07134	.07114	.67412	.46421	.27268
1.0723	61337	.06939	-.03731	-.07157	.07363	-.07145	.07114	.67230	.52637	.32211
1.0723	69156	.06947	-.04315	-.07182	.07364	-.07155	.07114	.67288	.58448	.37578
1.0723	77417	.07112	-.04895	-.07214	.07366	-.07159	.07114	.67319	.64311	.43666
1.0723	89973	.07224	-.05597	-.07239	.07367	-.07165	.07114	.67368	.69973	.51471
1.0723	94972	.07440	-.06317	-.07262	.07369	-.07173	.07114	.67437	.75594	.57973
1.0723	1.04105	.07637	-.06997	-.07294	.07373	-.07189	.07114	.67464	.80945	.65993
1.0723	1.12953	.07737	-.07777	-.07315	.07376	-.07193	.07114	.67592	.85531	.74147
1.0723	1.22177	.07817	-.08728	-.07374	.07380	-.07193	.07114	.67623	.89973	.82918
1.0723	1.37957	.07946	-.09799	-.07415	.07384	-.07202	.07114	.67746	.93684	.91835
1.0723	1.50407	.07925	-.11357	-.07440	.07371	-.07205	.07114	.67778	.96948	1.01103
1.0723	.03597	.07378	-.07171	-.07315	.07372	-.07206	-.07207	-.07354	.02916	.02078

GRADIENT

DATE 10 MAR 75

TABULATED SOURCE DATA - QAM

QAM 020 (9 CAS FO M16 H00 AS VS M16

RTMUS71 ( 18 OCT 74 )

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BDFAP = .000  
 SDFAP = 55.000 RUDDER = .000  
 RNL = .933

REFERENCE DATA

SAF = 2000.0000 IN. PT. WHP = 1.78.0000 IN. TO  
 REF = 474.0000 IN. WHP = .0000 IN. TO  
 SAF = 316.0000 IN. WHP = 3.75.0000 IN. TO  
 SCALE = .3150

RUN NO. 1657 ( ) RNL = .93 GRADIENT INTERVAL = 15.00/ 25.00

WACH	ALPHA	CM	CAP	CLMP	CT	CTN	CBL	CAB	XCP/L	CLF	COF
1.000	17.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	14974
1.000	18.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	17989
1.000	19.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	21866
1.000	20.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	25712
1.000	21.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	29541
1.000	22.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	33384
1.000	23.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	37227
1.000	24.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	41070
1.000	25.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	44913
1.000	26.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	48756
1.000	27.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	52599
1.000	28.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	56442
1.000	29.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	60285
1.000	30.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	64128
1.000	31.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	67971
1.000	32.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	71814
1.000	33.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	75657
1.000	34.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	79500
1.000	35.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	83343
1.000	36.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	87186
1.000	37.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	91029
1.000	38.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	94872
1.000	39.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	98715
1.000	40.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	102558
1.000	41.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	106401
1.000	42.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	110244
1.000	43.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	114087
1.000	44.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	117930
1.000	45.000	15.000	16456	17170	17378	17379	17373	17371	65088	26094	121773

CATH 826 C0 E43 F0 M16 M20 R5 W0 M16

RTWD36) ( 16 OCT 74 )

## REFERENCE DATA

BREF = 2003.7777 90.77. BREF = 1576.6070 14.70  
 LREF = 474.8173 14.70. LREF = .7777 14.70  
 BREF = 936.6073 14.70. BREF = 375.7773 14.70  
 SCALE = .7197

## PARAMETRIC DATA

BETA = .7777 ELV-LO = .7777  
 ELV-LI = .7777 ELV-HI = .7777  
 ELV-RO = .7777 DOFLAP = 16.777  
 SPORUM = 33.7777 RUDDER = .7777  
 RM/L = .7777

RUN NO. 1667 0 RM/L = .7777 GRADIENT INTERVAL = 15.00/ 25.00

ALPHA	CN	CAP	CLAP	CV	CYN	CEL	CAB	KCP/L	CLP	CDP
1.7777	.29026	.07114	-.02413	.00337	.00003	.00004	-.00001	.67966	.26560	.15437
1.7777	.30702	.06277	-.01733	-.00026	-.00006	.00014	-.00001	.66070	.35003	.18817
1.7777	.44336	.07706	-.02496	-.00032	-.00007	.00014	-.00001	.67136	.39037	.22366
1.7777	.31639	.06997	-.03233	-.00036	-.00010	.00014	-.00001	.67238	.44821	.26620
1.7777	.07133	.06833	-.03367	-.00043	-.00013	.00012	-.00001	.67136	.51331	.31391
1.7777	.67936	.06994	-.03443	-.00101	-.00017	.00012	-.00001	.67177	.57403	.36086
1.7777	.76315	.07137	-.04355	-.00127	-.00020	.00014	-.00001	.67193	.63333	.43153
1.7777	.84646	.07191	-.05744	-.00157	-.00026	.00016	-.00001	.67187	.66873	.49773
1.7777	.93379	.07343	-.07391	-.00196	-.00029	.00016	-.00001	.67276	.74314	.57017
1.7777	1.02407	.07423	-.06316	-.00241	-.00036	.00011	-.00001	.67333	.79653	.64039
1.7777	1.11297	.07562	-.07311	-.00285	-.00043	.00013	-.00001	.67413	.84296	.72990
1.7777	1.21371	.07543	-.08293	-.00292	-.00042	.00017	-.00001	.67534	.88744	.81566
1.7777	1.29433	.07653	-.09034	-.00332	-.00046	.00016	-.00001	.67551	.92639	.91691
1.7777	1.37771	.07671	-.10123	-.00369	-.00048	.00021	-.00001	.67699	.95493	.99537
1.7777	.07306	.07323	-.09117	-.00413	-.00052	.00021	-.00001	.00000	.02937	.02704

DATE 10 MAR 75

TABULATED SOURCE DATA - ON P

PAGE 55

ON P 026 C9 E45 F0 M16 N20 R5 W0 M16

UTM190) ( 10 OCT 74 )

## REFERENCE DATA

MEAN = 2001.7777 IN. ST. MEAN = 1716.6077 IN. NO  
 CORR = 474.8177 IN. CORR = .7777 IN. NO  
 MEAN = 916.6077 IN. CORR = 375.7777 IN. NO  
 SCALE = .1191

## PARAMETRIC DATA

BETA = .070 ELV-LO = .070  
 ELV-LI = .070 ELV-HI = .070  
 ELV-RO = .070 BOFLAP = -11.770  
 SPOOR = 55.770 RUDDER = .070  
 RM/L = .570

RUN NO. 1077 0 RM/L = .97 GRADIENT INTERVAL = 15.07/ 25.07

WACH	ALPHA	CM	CAP	CLMP	CV	CYN	CRK	CAB	KCP/L	CL	CDP
1.071	17.777	20722	.06417	-.07455	.07141	-.07770	.07775	-.07792	.65070	.26347	.14827
1.071	19.777	37416	.06352	-.07227	-.07744	.07771	.07775	-.07792	.65225	.33407	.17904
1.071	21.777	43082	.06174	-.07127	-.07736	-.07774	.07775	-.07792	.65197	.38756	.21406
1.071	23.777	57634	.06271	-.07348	-.07733	-.07716	.07775	-.07792	.65249	.44199	.25557
1.071	25.777	57795	.06329	-.07366	-.07734	-.07711	.07772	-.07792	.65361	.49186	.30131
1.071	27.777	64792	.06339	-.07359	-.07733	-.07714	.07772	-.07792	.65367	.54032	.35063
1.071	29.777	72641	.06377	-.07377	-.07733	-.07729	.07771	-.07792	.65407	.60442	.40793
1.071	31.777	80763	.06423	-.07451	-.07714	-.07729	.07775	-.07792	.65311	.66075	.47155
1.071	33.777	89313	.06517	-.07451	-.07717	-.07731	.07777	-.07793	.65593	.71300	.54101
1.071	35.777	97906	.06482	-.07456	-.07721	-.07739	.07775	-.07793	.65693	.76542	.61320
1.071	37.777	106600	.06315	-.07227	-.07763	-.07744	.07710	-.07793	.65761	.81290	.68390
1.071	39.777	115707	.06444	-.07477	-.07791	-.07761	.07710	-.07792	.65924	.85355	.77446
1.071	41.777	123795	.06347	-.07337	-.07734	-.07735	.07716	-.07793	.65996	.89256	.85999
1.071	43.777	132227	.06216	-.07466	-.07736	-.07735	.07727	-.07793	.66126	.92461	.94710
1.071	45.777	141416	.07222	.07773	-.07779	-.07772	-.07777	-.07793	-.07743	.02070	.01913

GRADIENT

CA 75 B2: CB E43 FB M16 N28 R5 W8 M16

(RTNDED) ( 18 OCT 74 )

## REFERENCE DATA

BEUF = 2000.0000 50. FT. 100RP = 1076.6000 IN. NO  
 LREF = 474.6100 IN. 100RP = .0000 IN. NO  
 BEUF = 936.6000 IN. 200RP = 375.0000 IN. NO  
 SCALE = .0193

## PARAMETRIC DATA

BETA = .000 ELV-LO = 20.000  
 ELV-LI = 20.000 ELV-RI = 20.000  
 ELV-RO = 20.000 BOFLAP = 16.000  
 SPOBRK = 55.000 RUOBER = .000  
 RNVL = .000

RUN NO. 100/ 0 RNVL = .50 GRADIENT INTERVAL = 15.00/ 25.00

MAOH	ALPHA	CN	CAP	CLWF	CY	CYN	CBL	CAB	XCP/L	CLF	COF
7.977	17.000	3.7528	.06403	-.06925	.00036	.00024	-.00066	-.00109	.71787	.33431	.19008
7.977	19.000	4.2054	.06775	-.07644	-.00016	.00026	-.00070	-.00109	.71239	.39742	.22985
7.977	21.000	.52028	.09285	-.06719	-.00020	.00022	-.00087	-.00109	.71052	.48063	.27413
7.977	23.000	.67949	.09406	-.09694	-.00035	.00019	-.00066	-.00109	.70848	.52429	.32473
7.977	25.000	.69366	.09653	-.10697	-.00076	.00017	-.00062	-.00109	.70666	.58788	.38064
7.977	27.000	.78101	.10090	-.11621	-.00112	.00011	-.00061	-.00109	.70470	.69006	.44448
7.977	29.000	.86715	.10351	-.12856	-.00136	.00006	-.00058	-.00109	.70450	.70728	.51268
7.977	31.000	.95748	.11035	-.14010	-.00174	.00003	-.00055	-.00109	.70379	.76387	.58771
7.977	33.000	1.05213	.11521	-.15316	-.00213	.00004	-.00054	-.00109	.70332	.81962	.66964
7.977	35.000	1.14697	.11991	-.16413	-.00256	.00006	-.00052	-.00109	.70261	.87068	.75804
7.977	37.000	1.23970	.12430	-.17755	-.00304	.00003	-.00051	-.00109	.70264	.91530	.84536
7.977	39.000	1.33370	.12827	-.18940	-.00327	.00001	-.00057	-.00109	.70220	.95578	.93903
7.977	41.000	1.42610	.13179	-.20286	-.00360	-.00003	-.00046	-.00109	.70229	.98982	1.03510
7.977	43.000	1.51687	.13457	-.21437	-.00390	-.00006	-.00036	-.00109	.70194	1.01740	1.13270
7.977	45.000	.03979	.00156	-.00479	-.00015	-.00001	-.00001	-.00000	-.00132	.03170	.02361

ORIGINAL PAGE IS  
 OF POOR QUALITY

CAY 826 C9 E43 F8 M16 M28 R5 V8 M16

(RTND61) (18 OCT 74)

## REFERENCE DATA

SURF = 2490.0000 SQ.FT. SURP = 1276.6000 IN.YO  
 LREF = 674.8100 IN. TREF = .0000 IN.YO  
 SURF = 936.6000 IN. ZREF = 375.0000 IN.ZO  
 SCALE = .0150

## PARAMETRIC DATA

BETA = .0000 ELV-LO = 20.0000  
 ELV-LI = 20.0000 ELV-RI = 20.0000  
 ELV-RO = 20.0000 BOFLAP = .0000  
 SPOBRK = 55.0000 RUDDER = .0000  
 RNU = .970

RUN NO. 169/0 RNU = .50 GRADIENT INTERVAL = 15.00/25.00

WAOH	ALPHA	CM	CAP	CLMF	CY	CYN	CBU	CAB	KCP/L	CLF	CDF
1.970	17.000	.35990	.08150	-.05980	.00044	.00044	-.00070	-.00106	.71111	.32034	.18318
1.970	19.000	.43439	.08394	-.06493	.00040	.00040	-.00071	-.00105	.71499	.38340	.22079
1.970	21.000	.51328	.08657	-.06978	.00039	.00039	-.00071	-.00106	.69999	.44817	.26477
1.970	23.000	.58958	.08932	-.07737	.00031	.00031	-.00072	-.00106	.68825	.50754	.31324
1.970	25.000	.66949	.09186	-.08373	.00029	.00029	-.00069	-.00106	.69598	.56795	.36619
1.970	27.000	.75422	.09434	-.09207	.00025	.00025	-.00069	-.00106	.69487	.62918	.42647
1.970	29.000	.83864	.09789	-.10356	.00023	.00023	-.00063	-.00106	.69407	.68803	.49219
1.970	31.000	.92622	.10158	-.10939	.00020	.00020	-.00057	-.00106	.69341	.74161	.56411
1.970	33.000	1.01070	.10526	-.11917	.00015	.00015	-.00053	-.00106	.69299	.79644	.64272
1.970	35.000	1.11290	.10958	-.12843	.00012	.00012	-.00053	-.00106	.69243	.84890	.72695
1.970	37.000	1.20410	.11277	-.13884	.00010	.00010	-.00052	-.00106	.69237	.89422	.81417
1.970	39.000	1.29290	.11489	-.14897	.00009	.00009	-.00055	-.00106	.69234	.93290	.90296
1.970	41.000	1.36090	.11736	-.16116	.00009	.00009	-.00054	-.00106	.69290	.96488	.99426
1.970	43.000	1.47270	.11866	-.17188	.00008	.00008	-.00040	-.00106	.69264	.99615	1.09120
1.970	GRADIENT	.03872	.00134	-.00301	-.00007	-.00007	.00000	-.00000	-.00185	.03097	.02293

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 19 MAR 75

TABULATED SOURCE DATA - CA 75

PAGE 56

CA 75 826 C9 E43 F8 M16 N28 R5 W8 M16

(RTM0162) (18 OCT 74)

## REFERENCE DATA

SRUF = 2000.0000 50.00 FT. ZMRP = 1376.6000 IN. 30  
 LRUF = 474.8100 IN. YMRP = .0000 IN. 70  
 BRUF = 936.6000 IN. ZMRP = 375.0000 IN. 20  
 SCALE = .0190

## PARAMETRIC DATA

BETA = .000 ELV-LO = -40.000  
 ELV-L1 = -40.000 ELV-RI = -40.000  
 ELV-RO = -40.000 BDFLAP = .000  
 SPOBRN = 55.000 RUDDER = .000  
 RM/L = .900

RUN NO. 170/0 RM/L = .51 GRADIENT INTERVAL = 15.00/25.00

WACH	ALPHA	CN	CAF	CLWF	CY	CYM	CSL	CAB	XCP/L	CLF	COF
1.970	17.000	.28793	.06324	.01249	.00024	-.00023	.00034	-.00110	.63401	.25873	.14482
1.970	19.000	.33685	.06949	.01625	-.00035	-.00027	.00039	-.00110	.64314	.29387	.17537
1.970	21.000	.40494	.07739	.01283	-.00049	-.00035	.00043	-.00110	.63831	.35282	.21084
1.970	23.000	.46769	.07131	.01406	-.00080	-.00036	.00044	-.00110	.63690	.40265	.24836
1.970	25.000	.54462	.06916	.01637	-.00125	-.00035	.00044	-.00110	.63890	.46436	.29285
1.970	27.000	.61553	.06737	.01833	-.00153	-.00037	.00045	-.00110	.63900	.51786	.33948
1.970	29.000	.68366	.06753	.02127	-.00182	-.00043	.00050	-.00110	.63914	.57045	.39341
1.970	31.000	.76523	.06842	.02443	-.00217	-.00047	.00052	-.00110	.64013	.62069	.45277
1.970	33.000	.84462	.06931	.02775	-.00262	-.00050	.00056	-.00110	.64122	.67078	.51824
1.970	35.000	.92562	.07115	.03135	-.00293	-.00053	.00059	-.00110	.64185	.71834	.58787
1.970	37.000	1.00553	.07333	.03537	-.00336	-.00061	.00061	-.00110	.64303	.76364	.66132
1.970	39.000	1.08597	.06929	.03874	-.00340	-.00064	.00064	-.00110	.64384	.80733	.73725
1.970	41.000	1.16597	.06937	.04152	-.00407	-.00074	.00066	-.00110	.64492	.84700	.81697
1.970	43.000	1.24543	.06794	.04526	-.00422	-.00077	.00066	-.00110	.64544	.88407	.89926
1.970	45.000	1.32222	.06769	.04917	-.00417	-.00082	.00071	-.00000	.00000	.00000	.01847

GRADIENT

(RTN063) (10 OCT 74)

TABULATED SOURCE DATA - CM79

CM79 B26 C9 E43 F6 M16 N28 R3 V8 M16

DATE 10 MAR 75

REFERENCE DATA

WAVE = 2000.0000 IN. CORP = 176.6000 IN. KO  
 LREF = 474.8100 IN. YMRP = .0000 IN. YU  
 DATE = 936.0000 IN. ZMRP = 373.0000 IN. LO  
 SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELV-LO = .000  
 ELV-LI = -40.000 ELV-RI = -40.000  
 ELV-RO = -20.000 BOFLAP = .000  
 SPOCK = 55.000 RUDDER = .000  
 RWL = 3.500

RUN NO. 17170 RWL = 3.50 GRADIENT INTERVAL = 15.00/25.00

WAVE	ALPHA	CN	CAR	CLMF	CT	CYN	COL	CAB	KCP/L	CLF	COF
5.000	1.000	.29051	.05810	.00149	-.0047	-.0012	.00119	.00214	.64062	.20977	.14093
5.000	19.000	.36240	.05635	.00176	-.00148	-.00135	.00136	.00214	.63996	.32432	.17148
5.000	21.000	.42914	.05609	.01116	-.00178	-.00119	.00159	.00214	.64031	.39022	.20699
5.000	23.000	.49033	.05747	.01216	-.00186	-.00141	.00187	.00214	.64093	.43718	.24000
5.000	25.000	.57264	.05802	.01337	-.00192	-.00149	.00229	.00214	.64150	.49447	.29460
5.000	27.000	.64847	.05871	.01355	-.00121	-.00154	.00220	.00214	.64221	.55114	.34671
5.000	29.000	.72722	.05940	.01363	-.00154	-.00149	.00233	.00214	.64301	.60724	.40431
5.000	31.000	.80757	.06022	.01298	-.00172	-.00157	.00262	.00214	.64399	.66121	.46755
5.000	33.000	.89039	.06075	.01210	-.00179	-.00162	.00289	.00214	.64491	.71365	.53589
5.000	35.000	.97452	.06164	.01025	-.00153	-.00161	.00334	.00214	.64674	.76397	.60864
5.000	37.000	1.05997	.06225	.00930	-.00124	-.00165	.00359	.00214	.64714	.80990	.68575
5.000	39.000	1.14410	.06257	.00841	-.00124	-.00171	.00382	.00214	.64818	.85153	.76645
5.000	41.000	1.22890	.06297	.00767	-.00126	-.00187	.00403	.00214	.64921	.88890	.85197
5.000	43.000	1.31270	.06373	-.00784	-.00126	-.00186	.00421	.00214	.65016	.92051	.93780
5.000	45.000	1.39587	.06445	-.00745	-.00136	-.00186	.00421	.00214	.65101	.94692	1.02670
5.000	47.000	.03426	.00724	.00768	-.00138	-.00198	.00410	-.00220	.00314	.02818	.01919

FOR QUALITY



CA/9 B26 C9 E43 F6 H16 M28 R5 V8 W416

(UTM065) ( 10 OCT 74 )

## REFERENCE DATA

WREF = 2697.0000 IN. FT. WREF = 1076.6000 IN. NO  
 LREF = 474.8100 IN. YREF = .0000 IN. TO  
 BREF = 936.6000 IN. ZREF = 315.0000 IN. TO  
 SCALE = .0140

## PARAMETRIC DATA

BETA = .0000 ELV-LO = .0000  
 ELV-LI = .0000 ELV-RI = .0000  
 ELV-RO = -20.0000 SOFLAP = .0000  
 SPOBANK = 55.0000 RUDDER = .0000  
 RM/L = 3.550

RUN NO. 1/2/ 0 RM/L = 3.52 GRADIENT INTERVAL = 15.00/ 25.00

MACH	ALPHA	CN	CAF	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	COF
0.000	17.000	.30690	.05903	.00000	-.00000	.00000	.00000	.00000	.64889	.27740	.14236
0.000	19.000	.31177	.05560	.00000	-.00000	.00000	.00000	.00000	.64871	.33341	.17361
0.000	21.000	.40034	.05305	.00000	-.00000	.00000	.00000	.00000	.64781	.39126	.21001
0.000	23.000	.51357	.05074	.00000	-.00000	.00000	.00000	.00000	.64896	.45085	.25225
0.000	25.000	.58939	.05633	.00000	-.00000	.00000	.00000	.00000	.64977	.51036	.30014
0.000	27.000	.66814	.05673	.00000	-.00000	.00000	.00000	.00000	.65077	.56956	.35388
0.000	29.000	.74939	.05719	.00000	-.00000	.00000	.00000	.00000	.65184	.62770	.41333
0.000	31.000	.83349	.05762	.00000	-.00000	.00000	.00000	.00000	.65296	.68475	.47866
0.000	33.000	.91973	.05797	.00000	-.00000	.00000	.00000	.00000	.65432	.73983	.54946
0.000	35.000	1.00690	.05744	.00000	-.00000	.00000	.00000	.00000	.65573	.79301	.62559
0.000	37.000	1.09743	.05699	.00000	-.00000	.00000	.00000	.00000	.65701	.84229	.70569
0.000	39.000	1.18690	.05576	.00000	-.00000	.00000	.00000	.00000	.65837	.88658	.78969
0.000	41.000	1.27530	.05471	.00000	-.00000	.00000	.00000	.00000	.65963	.92635	.87776
0.000	43.000	1.36200	.05332	.00000	-.00000	.00000	.00000	.00000	.66093	.96225	.96835
0.000	45.000	1.45070	.05140	.00000	-.00000	.00000	.00000	.00000	.66199	.99947	1.06220
GRADIENT	.73534	.00000	.00000	.00000	-.00000	-.00000	.00000	-.00000	.00000	.00000	.00000

PARAMETRIC DATA

BETA = .000  
ELV-LO = .000  
ELV-RI = -20.000  
ELV-RO = -10.000  
RDLAP = .000  
SPOOR = 55.000  
RLOOR = .000  
RM/L = 3.530

REFERENCE DATA

MEP = 2697.0000 50. FT.  
LREF = 474.8100 IN.  
BREF = 936.6000 IN.  
SCALE = .0150

RUN NO. 173/0 RM/L = 3.52 GRADIENT INTERVAL = 15.00/25.00

MAON	ALPHA	CN	CAF	CLAP	CF	CYN	CBL	CAB	XCP/L	CLF	CDF
0.000	17.000	.50179	.03547	.02498	-.00032	-.00031	.00052	.00214	.64381	.27238	.14128
0.000	19.000	.36901	.03582	.00729	-.00067	-.00016	.00068	.00214	.64232	.32656	.17181
0.000	21.000	.43222	.03614	.00665	-.00099	-.00028	.00091	.00214	.64231	.38340	.20730
0.000	23.000	.50390	.03627	.00602	-.00117	-.00044	.00099	.00214	.64330	.44186	.24868
0.000	25.000	.57764	.03664	.00534	-.00132	-.00057	.00106	.00214	.64394	.49958	.29545
0.000	27.000	.65436	.03699	.00422	-.00159	-.00057	.00115	.00214	.64472	.55717	.34786
0.000	29.000	.73361	.03753	.00315	-.00176	-.00056	.00120	.00214	.64556	.61374	.40598
0.000	31.000	.81517	.03810	.00210	-.00196	-.00059	.00134	.00214	.64668	.66881	.46964
0.000	33.000	.89814	.03810	.00110	-.00216	-.00069	.00142	.00214	.64781	.72244	.53843
0.000	35.000	.98328	.03754	.00245	-.00232	-.00067	.00145	.00214	.64900	.77409	.61227
0.000	37.000	1.07110	.03694	.00090	-.00259	-.00067	.00150	.00214	.65022	.82120	.68999
0.000	39.000	1.15780	.03583	-.00041	-.00283	-.00074	.00156	.00214	.65138	.86461	.77199
0.000	41.000	1.24400	.03452	-.00075	-.00307	-.00081	.00163	.00214	.65251	.90310	.85750
0.000	43.000	1.32920	.03288	-.00139	-.00335	-.00086	.00169	.00214	.65357	.93803	.94516
0.000	45.000	1.41340	.03093	-.00180	-.00367	-.00081	.00173	.00214	.65461	.96345	1.03550
GRADIENT		.03453	.00014	.00053	-.00011	-.00006	.00007	-.00000	.00005	.02847	.01927

ORIGINAL PAGE IS  
OF POOR QUALITY

CA 79 B26 C9 E43 F0 H16 M08 R3 W0 W416

(RTN087) (10 OCT 74 )

## REFERENCE DATA

BREF = 2000.0000 90.00 FT.    ZMRP = 1076.6000 IN. MO  
 LREF = 474.8100 IN.    YMRP = .0000 IN. VO  
 BREF = 936.6000 IN.    ZMRP = 375.0000 IN. ZO  
 SCALE = .0100

## PARAMETRIC DATA

BETA = .000    ELV-LO = -10.000  
 ELV-L1 = -20.000    ELV-RT = -20.000  
 ELV-RO = -30.000    BDFLAP = .000  
 SPOORN = 55.000    RUDDER = .000  
 RN/L = 3.330

RUN NO. 1747 0    RN/L = 3.33    GRADIENT INTERVAL = 15.00/ 25.00

MAON	ALPHA	CM	CAP	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	CDF
0.000	17.000	.29943	.05597	.00811	-.00041	.00028	.00110	.00213	.63989	.28999	.14107
0.000	19.000	.36228	.05660	.01044	-.00051	.00037	.00122	.00213	.63926	.32412	.17147
0.000	21.000	.42693	.05741	.01174	-.00083	-.00034	.00136	.00213	.63976	.37798	.20658
0.000	23.000	.49093	.05729	.01307	-.00107	-.00026	.00155	.00213	.64025	.43690	.24769
0.000	25.000	.57178	.05772	.01391	-.00105	-.00026	.00164	.00213	.64094	.49381	.29396
0.000	27.000	.64811	.05809	.01430	-.00138	-.00029	.00176	.00213	.64178	.55110	.34598
0.000	29.000	.72656	.05871	.01407	-.00161	-.00026	.00187	.00213	.64278	.60709	.40364
0.000	31.000	.80701	.05934	.01324	-.00194	-.00037	.00206	.00213	.64367	.66118	.46650
0.000	33.000	.88966	.05939	.01197	-.00215	-.00036	.00220	.00213	.64496	.71378	.53436
0.000	35.000	.97493	.05993	.01007	-.00244	-.00030	.00231	.00213	.64611	.76446	.60723
0.000	37.000	1.05987	.05922	.00744	-.00273	-.00028	.00245	.00213	.64733	.81132	.68427
0.000	39.000	1.14501	.05721	.00434	-.00278	-.00032	.00260	.00213	.64852	.85437	.76546
0.000	41.000	1.23041	.05595	.00189	-.00281	-.00034	.00280	.00213	.64965	.89210	.84949
0.000	43.000	1.31540	.05425	-.00071	-.00279	-.00032	.00311	.00213	.65068	.92502	.93678
0.000	45.000	1.39950	.05223	-.00267	-.00234	-.00027	.00322	.00213	.65170	.95185	1.02570
GRADIENT		.05417	.00021	.00071	-.00009	-.00007	.00007	-.00000	.00015	.00202	.01910

(RTN060) ( 18 OCT /4 )

DATE 19 MAR /3  
TABULATED SOURCE DATA - CAY

CAV 026 C0 E43 F0 M16 M08 M3 M0 M16

PARAMETRIC DATA

BETA = .000 ELV-CO = -10.000  
ELV-LI = -10.000 ELV-BI = -30.000  
ELV-RO = -30.000 BDFLAP = .000  
SPORER = 55.000 RUGGER = .000  
RWL = 3.550

REFERENCE DATA

SURF = 2000.0000 30.00 FT. SURF = 1376.6000 IN. RO  
LIES = 474.910 IN. LIES = .0000 IN. TO  
SLOPE = 936.0000 IN. SLOPE = 375.0000 IN. TO  
SCALE = 11.97

RUN NO. 175/0 RWL = 3.52 GRADIENT INTERVAL = 15.00/25.00

WADH	ALPHA	CM	CAF	CLMF	CY	CYN	CBL	CAB	XCP/L	CLF	COF
0.000	17.000	200.97	.03633	.01779	-.00047	.00029	.00139	.00214	.64026	.26899	.14114
0.000	18.000	361.06	.03676	.01776	-.00036	.00017	.00136	.00214	.63962	.32291	.17122
0.000	21.000	428.63	.03699	.01771	-.00016	-.00013	.00101	.00214	.63983	.37992	.20608
0.000	23.000	499.32	.03721	.01243	-.00072	-.00024	.00209	.00214	.64071	.43727	.24776
0.000	25.000	571.82	.03754	.01268	-.00065	-.00033	.00229	.00214	.64161	.49393	.29381
0.000	27.000	640.72	.03803	.01329	-.00075	-.00036	.00231	.00214	.64233	.55103	.34392
0.000	29.000	720.65	.03864	.01376	-.00100	-.00033	.00276	.00214	.64329	.60711	.40358
0.000	31.000	807.99	.03926	.01210	-.00110	-.00045	.00310	.00214	.64440	.66172	.46674
0.000	33.000	897.36	.03980	.01791	-.00136	-.00047	.00343	.00214	.64540	.71438	.53473
0.000	35.000	979.49	.03931	.00860	-.00146	-.00044	.00314	.00214	.64667	.76523	.60786
0.000	37.000	1.00000	.03936	.00399	-.00156	-.00047	.00410	.00214	.64784	.81193	.68492
0.000	39.000	1.14810	.03742	.00280	-.00149	-.00036	.00449	.00214	.64902	.85436	.76589
0.000	41.000	1.23197	.03626	-.00073	-.00133	-.00064	.00493	.00214	.65014	.89249	.85038
0.000	43.000	1.31610	.03481	-.00166	-.00149	-.00063	.00535	.00214	.65122	.92513	.93764
0.000	45.000	1.39990	.03293	-.00302	-.00154	-.00058	.00577	.00214	.65224	.95243	1.02730
0.000	47.000	0.3425	.00014	.00063	-.00003	-.00008	.00012	.00000	.00019	.00021	.00000

DATE 19 MAR 75

TABULATED SOURCE DATA - OATP

PAGE 82

OATP 826 C9 E43 F8 M16 M28 R3 V8 M16

(RTW000) ( 18 OCT 74 )

## REFERENCE DATA

SREF = 2001.0000 M.F.T. WREF = 1276.0000 IN.WO  
 LREF = 474.0100 IN. YREF = .0000 IN.WO  
 MREF = 936.0000 IN. ZREF = 375.0000 IN.WO  
 SCALE = .0100

## PARAMETRIC DATA

BETA = .000 ELV-LO = 10.000  
 ELV-LI = -10.000 ELV-RI = -10.000  
 ELV-RO = -10.000 BOFLAP = .000  
 SPOBEM = 55.000 RUDDER = .000  
 RM/L = 3.530

RUN NO. 176/ 0 RM/L = 3.53 GRADIENT INTERVAL = 15.00/ 25.00

WAOH	ALPHA	CN	CAP	CLMF	CY	CYN	CIL	CAB	XCP/L	CLF	COF
0.000	17.000	.97021	.03556	.00074	-.00026	-.00032	.00190	.00212	.64097	.27890	.14325
0.000	18.000	.97197	.03531	.00076	-.00035	-.00037	.00236	.00212	.64703	.33390	.17397
0.000	21.000	.97003	.03603	.00073	-.00073	-.00071	.00277	.00212	.64779	.39325	.21060
0.000	23.000	.97151	.03691	.00081	-.00081	-.00081	.00316	.00212	.64837	.45045	.25303
0.000	25.000	.96979	.03727	.00092	-.00092	-.00091	.00346	.00212	.64912	.50879	.30045
0.000	27.000	.96657	.03775	.00106	-.00106	-.00106	.00373	.00212	.64997	.56770	.35407
0.000	29.000	.96351	.03831	.00129	-.00129	-.00131	.00400	.00212	.65080	.62510	.41321
0.000	31.000	.96066	.03890	.00161	-.00161	-.00161	.00433	.00212	.65193	.68194	.47847
0.000	33.000	.95800	.03955	.00195	-.00195	-.00199	.00460	.00212	.65314	.73610	.54832
0.000	35.000	.95550	.04026	.00239	-.00239	-.00241	.00487	.00212	.65428	.78824	.62330
0.000	37.000	.95310	.04103	.00280	-.00280	-.00281	.00512	.00212	.65550	.83731	.70311
0.000	39.000	.95080	.04186	.00326	-.00326	-.00325	.00535	.00212	.65668	.88109	.78660
0.000	41.000	.94860	.04273	.00376	-.00376	-.00371	.00555	.00212	.65778	.91994	.87329
0.000	43.000	.94650	.04364	.00430	-.00430	-.00424	.00567	.00212	.65869	.95371	.96331
0.000	45.000	.94450	.04459	.00488	-.00488	-.00480	.00567	.00212	.65984	.98196	1.03590
0.000	47.000	.94260	.04557	.00550	-.00550	-.00540	.00567	.00212	.66114	.02888	.01967

GRADIENT

C/M 828 C 1 E43 F0 M16 M00 M3 M0 M10

(RTWD) ( 10 OCT 74 )

## REFERENCE DATA

WAVE = 2000.0000 NO. FT. WAVE = 1076.6000 IN. NO  
 PER = 474.0100 IN. PER = .0000 IN. NO  
 WAVE = 936.6000 IN. WAVE = 575.0000 IN. NO  
 SCALE = .0000

## PARAMETRIC DATA

BETA = .0000 ELV-LO = -5.0000  
 ELV-LI = -5.0000 ELV-RI = 5.0000  
 ELV-RO = 5.0000 BDFLAP = .0000  
 SFDARK = 55.0000 RUDDER = .0000  
 R/V/L = 3.550

RUN NO. 17770 R/V/L = 3.55 GRADIENT INTERVAL = 30/ 25.00

WAVE	ALPHA	CM	CAF	CLWF	CY	CFM	CBU	CAS	KCP/L	CLF	COF
0.000	17.000	31070	03560	-001434	-00132	000351	-000268	000208	05512	08779	14634
0.000	18.000	30334	035074	-001400	-001167	000346	-000328	000208	05459	04421	17779
0.000	21.000	43290	035715	-001461	-000215	000351	-000337	000208	05363	00234	21566
0.000	23.000	32636	035753	-001736	-000256	000353	-000413	000208	05374	06205	25863
0.000	25.000	00361	036072	-001927	-000277	000361	-000468	000208	05353	02234	30760
0.000	27.000	66349	036059	-011225	-000298	000375	-000524	000208	05649	08239	36290
0.000	29.000	76644	036332	-011349	-000341	000392	-000590	000208	05734	06158	42346
0.000	31.000	03102	036725	-011972	-000365	000397	-000631	000208	05843	06912	49036
0.000	33.000	03926	036756	-024533	-000395	000316	-000644	000208	05932	07473	56233
0.000	35.000	102697	036759	-033253	-000427	000344	-000742	000208	06074	08785	63938
0.000	37.000	111097	036771	-036971	-000454	000363	-000790	000208	06192	09712	72103
0.000	39.000	120497	036944	-04317	-000457	000383	-000831	000208	06306	090216	80695
0.000	41.000	120007	03662	-047253	-000444	000396	-000867	000208	06413	09449	89609
0.000	43.000	130697	035766	-053773	-000450	000224	-000997	000208	06524	097457	98765
0.000	45.000	147507	036391	-06477	-000472	000249	-000993	000208	06608	100359	108310
0.000	GRADIENT	03571	03613	-000061	-000017	000001	-000022	000000	000000	000000	000000

CM 75 B25 C5 E43 P8 M16 N20 R3 W6 M116

UTM0711 ( 18 OCT 74 )

## REFERENCE DATA

BWP = 2000.0000 50.00 FT. ZMRP = 1076.6000 IN. 20  
 LWR = 474.8100 IN. YMRP = .0000 IN. 20  
 BWR = 936.6000 IN. ZMRP = 375.0000 IN. 20  
 SCALE = .0100

## PARAMETRIC DATA

BETA = .0000 ELV-LO = .0000  
 ELV-LI = .0000 ELV-HI = .0000  
 ELV-RO = .0000 ROP-LAP = .0000  
 SPOBKA = 25.0000 RUDDER = .0000  
 RM/L = 3.330

RUN NO. 17670 RM/L = 3.31 GRADIENT INTERVAL = 15.00/ 25.00

RM-ON	ALPHA	CM	CAP	CLW	CY	CYN	COL	CAB	KCP/L	CLF	COF
0.000	17.000	.31484	.03377	-.07453	-.00003	.00003	-.00075	.00210	.65515	.28338	.14347
0.000	18.000	.30748	.03432	-.07339	-.00006	-.00006	-.00082	.00210	.65525	.34207	.17523
0.000	21.000	.44493	.03913	-.07379	-.00147	-.00012	-.00096	.00210	.65298	.47032	.21262
0.000	23.000	.32379	.03537	-.07393	-.00179	-.00019	-.00101	.00210	.65340	.48743	.25581
0.000	25.000	.07015	.03586	-.07673	-.00162	-.00032	-.00110	.00210	.65402	.52032	.30476
0.000	27.000	.60711	.03626	-.07914	-.00174	-.00039	-.00126	.00210	.65485	.58744	.35893
0.000	29.000	.78261	.03680	-.07120	-.00215	-.00033	-.00143	.00210	.65599	.63946	.41440
0.000	31.000	.84796	.03747	-.07167	-.00242	-.00037	-.00157	.00210	.65718	.69724	.48599
0.000	33.000	.93491	.03780	-.07248	-.00251	-.00034	-.00176	.00210	.65836	.75280	.57767
0.000	35.000	1.02480	.03753	-.07278	-.00285	-.00028	-.00197	.00210	.65971	.80644	.63491
0.000	37.000	1.11520	.03753	-.07343	-.00318	-.00014	-.00211	.00210	.66093	.85627	.71609
0.000	39.000	1.20520	.03636	-.07424	-.00319	-.00012	-.00221	.00210	.66227	.90118	.80223
0.000	41.000	1.29520	.03540	-.07442	-.00327	-.00011	-.00230	.00210	.66339	.94111	.89131
0.000	43.000	1.38453	.03423	-.07482	-.00361	-.00006	-.00241	.00210	.66449	.97544	.98376
0.000	45.000	1.47241	.03276	-.07547	-.00393	.00025	-.00247	.00210	.66553	1.00410	1.07880
GRADIENT	.03570	.03327	-.07751	-.07751	-.00000	-.00000	-.00000	-.00000	-.00000	.02941	.02011

108774

CALCULATED SOURCE DATA - CATH  
 CATH 325 CB 243 PB 116 PCO 93 VO 116

PARAMETRIC DATA

ALPHA	21.000	ELV-LO	0.000
ELV-L1	0.000	ELV-R1	0.000
ELV-R0	0.000	OSCLAP	0.000
SCUDAR	23.000	RUDDER	0.000
BWZ	3.533		

RECEIVED DATA

[illegible]

CONFIDENCE INTERVAL = -3.00 / 3.00

[illegible]

## IMPACT: Easy

( 10 OCT 74 )

**SYNAPTIC DATA**

ALPHA	2	33.000	ELV-LO	2	.000
ELV-LI	2	.000	ELV-RI	2	.000
ELV-RO	2	.000	BOFLA	1	.000
SPOBR	2	29.000	RLOOBR	2	.000
SW/L	2	3.500			

**REFERENCE DATA**

Year	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1976	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100

100% - 1.00

Model	BETA	CM	CAP	CLMP	CY	CYN	CBL	CAB	ACP/L	CLF	CDF
0.0000	-8.172	0.0073	-0.5454	-0.7140	0.0001	-0.0444	0.0450	0.7100	0.5112	0.7147	-0.0232
0.000	-9.116	0.0046	-0.5532	-0.7174	0.0101	-0.0300	0.0285	0.7105	0.5725	0.7107	-0.0304
0.000	-1.797	0.0000	-0.5447	-0.7170	0.0170	-0.0302	-0.0102	0.7106	0.5722	0.7106	-0.0310
0.000	0.000	0.0073	-0.5547	-0.7169	-0.0323	-0.0302	0.0170	0.7105	0.5723	0.7106	-0.0306
0.000	1.717	0.0006	-0.5547	-0.7168	-0.0373	-0.0197	0.0472	0.7170	0.5713	0.7106	-0.0306
0.000	9.797	0.0047	-0.5547	-0.7166	-0.0400	-0.0407	0.0432	0.7176	0.5607	0.7104	-0.0349
0.000	9.141	0.0042	-0.5537	-0.7167	-0.0422	-0.0373	0.0226	0.7166	0.5731	0.7106	-0.0301
0.000	0.000	-0.0010	-0.7127	0.7112	-0.0605	-0.0141	-0.0103	-0.0002	-0.0003	-0.0004	-0.0001



C/P 025 TO 043 P6 M66 M00 03 10 M16

MTHD74) ( 10 OCT 74 )

## REFERENCE DATA

BREF = 2000.0000 00.00.    M00P = 1070.0000 00.00  
 LREF = 070.0000 00.00.    M00P = 0000.0000 00.00  
 BREF = 010.0000 00.00.    M00P = 375.0000 00.00  
 SCALE = 0.0001

## PARAMETRIC DATA

ALPHA = 00.000    ELV-LO = 0.000  
 ELV-L1 = 0.000    ELV-R1 = 0.000  
 ELV-R0 = 0.000    ROP-LAP = 0.000  
 SPOWEL = 25.000    RUDDER = 0.000  
 RWL = 3.500

RUN NO. 10172    RWL = 3.53    GRADIENT INTERVAL = -5.00/ 5.00

MECH	BETA	Cn	CAP	CLAP	CY	CYN	CIL	CAB	ICP/L	CLF	COF
0.000	-3.101	1.31000	.05510	-.04910	.02067	.00020	.00020	.00117	.66365	.95575	.91080
0.000	-3.172	1.32200	.05440	-.04900	.01976	.00010	.00010	.00108	.66367	.95001	.91210
0.000	-3.133	1.32300	.05515	-.04897	.02200	.00015	.00015	.00106	.66336	.95040	.91211
0.000	-3.127	1.32300	.05575	-.04877	.02332	.00016	.00016	.00112	.66333	.95165	.91363
0.000	-3.107	1.32000	.05275	-.04895	.02355	.00010	.00010	.00105	.66333	.95130	.91245
0.000	-3.136	1.32300	.05265	-.04965	.02201	.00010	.00010	.00102	.66371	.95170	.91370
0.000	-3.104	1.32400	.05300	-.04942	.02371	.00012	.00012	.00101	.66370	.95094	.91367
0.000	GRADIENT	.00000	-.00000	-.00000	-.00000	-.00000	-.00000	-.00000	.00000	.00000	.00000



DATE 19 MAR 75

TABULATED SOURCE DATA - CA79

PAGE 66

CA79 B26 C9 E43 F8 M16 N28 R5 V6 M16

(RTW076) ( 18 OCT 74 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. WARP = 10/6.6000 IN.XO  
 LREF = 474.8100 IN. YARP = .0000 IN.YO  
 BREF = 936.6000 IN. ZARP = 3/5.0000 IN.ZO  
 SCALE = .0191

## PARAMETRIC DATA

ALPHA = 20.000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BDFLAP = .000  
 SPOBRK = -25.000 RUDDER = -20.000  
 RN/L = 3.330

RUN NO. 183/ 0 RN/L = 3.51 GRADIENT INTERVAL = -5.00/ 5.00

MAOM	BETA	CN	CAF	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	CDF
0.000	-5.087	.43412	.05720	-.07423	.03784	.00780	.00308	.00217	.63347	.38738	.20470
0.000	-5.134	.42740	.05618	-.07368	.02281	.00515	.00269	.00224	.63321	.38186	.20002
0.000	-5.191	.43408	.05601	-.07302	.00664	.00240	-.00000	.00218	.63244	.38825	.20396
0.000	.002	.43489	.05597	-.07259	-.00166	.00109	-.00135	.00213	.63207	.38819	.20389
0.000	1.032	.43416	.05521	-.07243	-.001929	.00032	-.00263	.00213	.63194	.38778	.20291
0.000	3.087	.43336	.05589	-.07235	-.02523	.00306	-.00328	.00215	.63187	.38682	.20321
0.000	5.127	.43298	.05774	-.07156	-.04315	.00526	-.00317	.00215	.63120	.38581	.20485
GRADIENT		.00283	-.00008	.00025	-.00073	-.00132	-.00128	-.00002	-.00022	.00000	.00042

CA79 B26 C9 E43 F8 M16 N28 R5 V6 M16

(RTW077) ( 18 OCT 74 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. WARP = 10/6.6000 IN.XO  
 LREF = 474.8100 IN. YARP = .0000 IN.YO  
 BREF = 936.6000 IN. ZARP = 3/5.0000 IN.ZO  
 SCALE = .0191

## PARAMETRIC DATA

ALPHA = 30.000 ELV-LO = .000  
 ELV-LI = .000 ELV-RI = .000  
 ELV-RO = .000 BDFLAP = .000  
 SPOBRK = -25.000 RUDDER = -20.000  
 RN/L = 3.330

RUN NO. 184/ 0 RN/L = 3.53 GRADIENT INTERVAL = -5.00/ 5.00

MAOM	BETA	CN	CAF	CLMF	CY	CYN	CBL	CAB	KCP/L	CLF	CDF
0.000	-5.086	.86615	.05708	-.07102	.02835	.00711	.00833	.00163	.65715	.71455	.49283
0.000	-5.090	.86928	.05603	-.07137	.01356	.00400	.00254	.00159	.65727	.71775	.49359
0.000	-.988	.87037	.05512	-.07106	-.00034	.00117	-.00116	.00180	.65713	.71927	.49354
0.000	.032	.87032	.05454	-.071656	-.000743	.000792	-.00323	.00161	.65692	.71933	.49294
0.000	1.044	.87024	.05469	-.071640	-.01435	.00142	-.00306	.00161	.65685	.71916	.49307
0.000	3.078	.86872	.05513	-.071621	-.02832	.00435	-.00374	.00160	.65678	.71780	.49272
0.000	5.086	.86599	.05674	-.071577	-.04362	.00689	-.01251	.00159	.65662	.71437	.49277
GRADIENT		-.00010	-.00013	.00021	-.00092	-.00136	-.00186	.00000	-.00009	-.00003	-.00015